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TENTH BELGIAN SURGICAL WEEK
Ostend, Thermae Palace Hotel
29th - 30th April - 1st - 2nd May 2009

SURGEONS COLLABORATING IN THE PATIENT’S BEST INTEREST

Programme

RBSS’s Major Sponsors
The 10th Belgian Surgical Week is organised together with:

Belgian Association for Cardiothoracic Surgery (BACTS)
Belgian Association for Pediatric Surgery (BELAPS)
Belgian Group for Endoscopic Surgery (BGES)
Belgian Section International College of Surgeons (BSICS)
Belgian Society for Surgical Oncology (BSSO)
Belgian Society for Vascular Surgery (BSVS)
Belgian Trauma Society (BTS)
Belgian Association for Surgical Trainees (BAST)
Section for Obesity Surgery - Belgium (SOSB)

and the Sections of the RBSS:

Belgian Section for Abdominal Wall Surgery (BSAWS)
Belgian Section for Breast Surgery (BSBS)
Belgian Section for Colorectal Surgery (BSCRS)
Belgian Section for Endocrine Surgery (BSES)
Belgian Section for Hepatobiliary and Pancreatic Surgery (BSHBPS)
Belgian Section for Upper GI Surgery (BSUGIS)

Scientific Secretariat:

ROYAL BELGIAN SOCIETY FOR SURGERY
Av. W. Churchill-laan 11/30, Brussel 1180 Bruxelles
Phone +32 (0)2 374 51 58 - Fax +32 (0)2 374 96 28
E-mail: amb@skynet.be
www.belsurg.org
Enterprise n° 422 621 575

Congress Secretariat:

MEDICONGRESS
Kloosterstraat 5, 9960 Assenede
Phone +32 (0)9 344 39 59 - Fax +32 (0)9 344 40 10
E-mail: RBSS@medicongress.com
www.medicongress.com
Welcome Address

Dear Colleagues and Friends,

The Belgian Surgical Week, the Annual Meeting organised by the Royal Belgian Society for Surgery (RBSS) together with other Belgian surgical societies, is a unique opportunity for all surgeons practicing in Belgium to exchange the most up-to-date scientific information, to see old friends and to meet younger colleagues.

This year, we celebrate its 10th anniversary meeting. The Belgian Surgical Week was started in parallel with the remarkable transformation of our Society by the creation of different sections and committees so as to accommodate surgeons dealing with all different surgical subspecialities. This has resulted in the Belgian Surgical Week being the largest surgical meeting in Belgium and we hope that this 10th edition will reach the highest attendance ever. The scientific theme of this year’s meeting is entitled:

Surgeons Collaborating in the Patient’s Best Interest.

On one hand, with this leading theme, we wish to underline the opportunity and the need for all surgeons to join and to participate in national studies, registries and databases so as to gather information which may help improve the outcome of our patients. On the other hand, we want to encourage interdisciplinary collaboration between surgeons from different (sub)specialities to combine surgical skills sometimes necessary to complete complex operations in the best interest of our patients. As you will notice in the final programme, many presentations in the different sessions organised by our sections and sister societies, will touch this topic.

For the first time, the Scientific Prize (€ 3000) of the RBSS will be awarded to a junior RBSS member, younger than 35 years of age, first author, chosen amongst the five best submitted and presented abstracts.

At the opening ceremony, we will have the pleasure to listen to a well known sportsman as well as to an art-lover and to welcome national and regional politicians. At the President’s symposium the new Collegium Chirurgicum will be presented to the surgical community and will be followed by presidential address entitled:

The Surgical Community: Reunited!

The Surgical Night’s programme includes a gala dinner and dancing to follow. This event will take place on Friday 1st May in the Ostend Casino, which is within walking distance of the Thermae Palace.

The Surgical Night is offered to the Junior members of the RBSS (partners are requested to pay). A guarantee payment of 25.00€ will be asked, but fully refunded, upon attendance at the Surgical Night. This offer is only valid for reservations made before 24th April 2009.

We look forward to welcoming you all in Ostend at the occasion of the 10th Belgian Surgical Week!

J. Lamote
Secretary General R.B.S.S.

D. Van Raemdonck
President R.B.S.S.
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<th>Albert Hall</th>
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Yellow = Coffee Break
Blue = Lunch Break
GA = General Assembly

Free Papers Awards
Young Investigators Award
Surgical Night
Royal Belgian Society for Surgery

Sponsors
## Exhibitors at the 10th Belgian Surgical Week

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<td>Novartis Pharma</td>
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<td>Olympus Belgium</td>
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<td>Opus Medical</td>
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<td>Richard Wolf Endoscopie</td>
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<td>Stöpler Belgium</td>
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<td>W.L. Gore &amp; Associates</td>
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Major Sponsor

KCI Medical

Johnson & johnson
Royal Belgian Society for Surgery

Opening Ceremony
10.30-12.00

Presidential Symposium
12.00-1.00

Thursday, 30th April 2009
Opening Ceremony
10.30-12.00 a.m.

Moderators: D. Van Raemdonck, President – L. Michel, First Vice-President

10.30  Sport & Medicine  
   J. Rogge (International Olympic Committee)  
   Introduction by D. Claeys (Gent)

10.55  Musical Intermezzo (Conservatorium Ostend)

11.00  Art & Medicine  
   J. Dequeker (Leuven)  
   Introduction by P. Depuydt (Ostend)

11.25  Musical Intermezzo (Conservatorium Ostend)

11.30  The place of the Surgeon in the Oncology Plan  
   K. Van de Woude on behalf of  
   L. Onkelinx (Federal Minister of Social Affairs and Health)

11.50  Welcome to Ostend  
   M. Lesaffre (Alderwoman, City of Ostend)

11.55  Musical Intermezzo (Conservatorium Ostend)

Presidential Symposium
12.00-12.45 a.m.

Moderators: J. Lamote, Secretary-General – M. Antoine, Assistant Secretary-General

12.00  The Collegium Chirurgicum  
   D. Claeys (Gent)

12.20  Introduction of the President  
   L. Michel (Mont Godinne)

12.25  Presidential Address: “The Surgical Community: Reunited”  
   D. Van Raemdonck (Leuven)

12.45  Opening Reception (all participants)

1.00  Lunch (by invitation only)
10\textsuperscript{th} Belgian Surgical Week
Social Events

* *

**Thursday 30\textsuperscript{th} April 2009**

* *

12.45 a.m.
Free Presidential Cocktail

* *

7.00 p.m.
Free Train Shuttle to the Mercator

* *

7.30 p.m.
Free Cocktail on Board of the Mercator

* *

**Friday 1\textsuperscript{st} May 2009**

* *

8.00 p.m.
Surgical Night (Reservation requested)
Dinner and dancing to follow
Ostend Casino
Royal Belgian
Society for Surgery

Programme
Wednesday, 29th April 2009

How we do it

Moderators: T. Gys (Geel)
            P. Gerard (Liège)

2.00 EVAR is THE treatment of AAA
   o pro
     F. Ferdin (Mons)
   o contra
     H. Van Damme (Liège)

2.30 The laparoscopic adrenalectomy
   L. Michel (Mont Godinne), S. Van Slycke (Marseille)

3.00 How to repair an umbilical hernia
   o Open repair with or without mesh
     C. Sommeling (Waregem)
   o Open intraperitoneal repair with Ventralex
     F. Berrevoet (Gent)
   o Laparoscopic repair
     E. Chelala (La Louvière)

3.30 Coffee Break

How we do it

Moderators: C. Bertrand (Haine-St-Paul)
            R. Bestman (Antwerpen)

4.00 Open versus laparoscopic left lobectomy of the liver
   o Open approach
     V. Donckier (Bruxelles)
   o Laparoscopic approach
     R. Troisi (Gent)

4.30 Treatment of anal fistula
   o Transanal rectal advancement flap
     J. Van de Stadt (Bruxelles)
   o Anal fistula plug
     M. Duinslaeger (Brussel)

5.00 Gastro-jejunal anastomosis in gastric bypass
   B. Dillemans (Brugge), B. Navez (Charleroi), E. Van Vyve (Bruxelles)

5.30 Invasive mediastinal staging in lung carcinoma
   o Cervical mediastinoscopy
     P. De Leyn (Leuven)
   o Endoscopic techniques
     K. Tournoy (Gent)
Wednesday, 29th April 2009

Free Paper Session

Moderator: H. Van Damme (Liège)
J. Weerts (Liège)

6.00 Multidisciplinary approach for hemifaciectomy for invasive basal cell carcinoma and attempt of postoperative rehabilitation
A. Jortay, G. Verougstraete, J. Daens, A. Demey, P. Brutus, C. Malevez (Bruxelles)

6.10 Why the multidisciplinary approach may represent a key for better results in the treatment of the diabetic critical limb ischemia wounds: practice in a departmental ‘diabetic foot’ group

6.20 Thoracoabdominal aortic aneurysm repair: results of conventional open surgery
M. Schepens, R. Heijmen, W. Ranchaert, U. Sonker, W. Morshuis (Nieuwegein, NL)

6.30 Abdominal wall closure after intestinal transplantation: a collaboration between transplant surgeons, abdominal wall surgeons and plastic/reconstructive surgeons

6.40 Treatment of giant incisional hernias using a standardized technique of intraperitoneal mesh in combination with component separation techniques: morbidity and midterm results
B. Van den Bossche, F. Berrevoet, X. Rogiers, B. de Hemptinne, R. Troisi (Gent)
# Programme

**Wednesday, 29th April 2009**

**Belgian Association of Pediatric Surgery**

**Boudewijn Room**

**Surgeons collaborating in the child’s best interest**

*Moderators: K. Van Renterghem (Gent), E. Van Hoorde (Charleroi)*

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<th>Time</th>
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<td>2.00</td>
<td>Invited lecture: Perspectives in Pediatric surgical training in Belgium</td>
<td>P. Erpicum, President BELAPS (Namur)</td>
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<td>2.10</td>
<td>Gastric teratoma: diagnosis and treatment</td>
<td>A. De Backer, D. Debruyne, M. Van der Linden, M. De Clercq, B. Desprechins, A. Hoores, A. Van Damme, Y. Vandenplas (Brussel)</td>
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<td>2.20</td>
<td>A minimal invasive technique for the evaluation of the radiological diagnosis of intestinal malrotation in children</td>
<td>L. Matthysens, R. Wijnen*, I. De Bauw*, M. Wijnen* (Amsterdam, *Nijmegen, NL)</td>
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<td>2.30</td>
<td>Serial transverse enteroplasty in proximal jejunal atresia</td>
<td>S. Sagaama, K. Van Renterghem, L. Goossens, M. Van Winckel (Gent)</td>
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<td>2.50</td>
<td>Coelioscopic splenopexy for wandering spleen in a 2 year old boy</td>
<td>G. Rodesch, E. Van der Veken, N. Gauquier*, M. Franckson*, E. Van Hoorde* (Bruxelles, *Charleroi)</td>
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<tr>
<td>3.00</td>
<td>Laparoscopic partial splenectomy for non-parasitic cyst of the spleen</td>
<td>L. Budiharto, P. Vuylsteke, B. Smet, P. Pattyn (Roeselare)</td>
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<td>3.20</td>
<td>Thoracoscopic repair of a esophageal atresia (video)</td>
<td>P. Philippe, M. Glass, J. Kieffer (Luxembourg, G.D.L.)</td>
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**Wednesday, 29th April 2009**

**Free Paper Session**

**Moderator:** B. Navez (Gilly)
F. Berrevoets (Gent)

5.30 Intraoperative cholangiography safely limits preoperative ERCP in case of suspicion for choledocholithiasis  
*FP 6*

**T. Martens, F. Berrevoet, D. De Looze, B. de Hemptinne, X. Rogiers, R. Troisi (Gent)**

5.40 Laparoscopic left lateral sectionectomy without inflow occlusion: the gold standard technique in non-cirrhotic liver parenchyma?  
*FP 7*


5.50 Interest of intraoperative parathormone measurement: results from a prospective study  
*FP 8*

**N. Abbes Orabi, D. Brandt, L. De Pauw, M. De Meyer, M. Mourad (Louvain-en-Woluwe)**

6.00 Clinical effectiveness of the transversus abdominis plane (TAP) block in patients undergoing abdominal surgery  
*FP 9*


6.10 Is malnutrition frequently present in the surgical patient? How to know it and why?  
*FP 10*

**S. De Waele, S. Mattens, G. Delvaux (Brussel)**

6.20 Comparison between laparoscopic, notes transgastric and notes transcolonic peritoneal exploration and laparoscopic ultrasonography in pigs  
*FP 11*

## Thursday, 30th April 2009

### Free Paper Session

**Moderators:**
- B. Topal (Leuven)
- A. De Roover (Liège)

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<tr>
<td>8.40</td>
<td>Long term quality of life after hepaticojejunostomy for iatrogenic</td>
<td>F. Akin, F. Berrevoet, X. Rogiers, B. de Hemtinne, R. Troisi (Gent)</td>
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<td>bile duct injury following cholecystectomy</td>
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<td>8.50</td>
<td>Increased resectability rate of colorectal metastases with</td>
<td>B. Van den Bossche, K. Boterbergh, S. Laurent, I. Deroo, F. Berrevoet, M. Peeters, B. de Hemtinne, R. Troisi (Gent)</td>
<td>FP 14</td>
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<td>neoadjuvant therapy with bevacizumab and 5FU +oxaliplatinum or irinotecan</td>
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<td>9.00</td>
<td>Simultaneous resection of synchronous liver metastases and colorectal</td>
<td>B. Van den Bossche, K. Boterbergh, S. Laurent, I. Deroo, F. Berrevoet, M. Peeters, B. de Hemtinne, R. Troisi (Gent)</td>
<td>FP 15</td>
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<td>cancer increases morbidity and mortality when major hepatectomies are performed</td>
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<td>9.10</td>
<td>Defining the optimal therapy sequence in synchronous resectable</td>
<td>E. Van Dessel, K. Fierens, P. Pattyn, Y. Van Nieuwenhove, M. Peeters, N. Van Damme, F. Berrevoet, W. Ceelen (Gent)</td>
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<td>liver metastases from colorectal cancer: a decision analysis</td>
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<td>combined liver kidney transplantation?</td>
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<td>9.30</td>
<td>Laparoscopic ultrasonography as a good alternative to intraoperative</td>
<td>A. Hublet, A. Dili, B. Mansvelt, G. Molle, C. Bertrand (Haine-St-Paul)</td>
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<td>cholangiography during laparoscopic cholecystectomy: results of a</td>
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<td>9.40</td>
<td>Extended hepatectomy improve resection rate and the prognosis of</td>
<td>R. Troisi, A. Sagnotta, S. Laurent, M. Sainz-Barriga, I. Colle, A. Geerts, T. Bocchetti, M. Peeters, H. Van Vlierbergh, D. de Hemtinne (Gent)</td>
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<td>hilar cholangiocarcinoma (Klatskin tumour): 68 patient’s single</td>
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<td>A prospective randomized controlled trial shows no benefit for</td>
<td>W. Willaert, F. Berrevoet, X. Rogiers, M. De Vos, B. de Hemtinne, R. Troisi (Gent)</td>
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<td>postoperative antibiotics after cholecystectomy for acute cholecystitis</td>
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### 10.00 Coffee break

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Thursday, 30th April 2009

10.30 Opening Ceremony
   Moderators: D. Van Raemdonck, President
               L. Michel, First Vice-President

10.30 Sport & Medicine
   J. Rogge (International Olympic Committee)
   Introduction by D. Claeyes (Gent)

10.55 Musical Intermezzo (Conservatorium Ostend)

11.00 Art & Medicine
   J. Dequeker (Leuven)
   Introduction by P. Depuydt (Ostend)

11.25 Musical Intermezzo (Conservatorium Ostend)

11.30 The place of the Surgeon in the Oncology Plan
   K. Van de Woude on behalf of
   L. Onkelinx (Federal Minister of Social Affairs and Health)

11.50 Welcome to Ostend
   M. Lesaffre (Alderwoman, City of Ostend)

11.55 Musical Intermezzo (Conservatorium Ostend)

12.00 Presidential Symposium
   Moderators: J. Lamote, Secretary General
               M. Antoine, Assistant Secretary

12.00 The Collegium Chirurgicum
   D. Claeyes (Gent)

12.20 Introduction of the President
   L. Michel (Mont Godinne)

12.25 Presidential Address: “The Surgical Community: Reunited”
   D. Van Raemdonck (Leuven)

12.45 Opening Reception (all participants)

1.00 Lunch (by invitation only)

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Thursday, 30th April 2009

Belgian Section of Colorectal Surgery

Moderators: F. Vansteenkiste (Kortrijk)
M. Duinlaeger (Brussel)

2.00  Procare, a National registry: first feedback: how to move on, reflections on first feedback
F. Penninckx (Leuven)

2.15  Neoadjuvant treatment in rectal cancer, impact on surgical quality
W. Ceelen, C. Coimbra (Gent, Liège)

2.40  Safe TME: laparoscopic or open surgery?
D. Claeys (Gent)

3.00  How to improve the quality of rectal cancer care in a national program
D. Rothenberger (Minnesota, U.S.A.)

3.30  Coffee break

Moderators: C. Coimbra (Liège)
M. Vanderveken (Antwerpen)

4.00  Stenting in colorectal cancer
Y. Vanmolkem (Aalst)

4.20  Colorectal surgery in the presence of metastasis
J. Van de Stadt (Bruxelles)

4.40  Local recurrence of rectal cancer
R. Detry (Louvain-en-Woluwe)

5.00  Anal tumours
D. Rothenberger (Minnesota, U.S.A.)
Thursday, 30th April 2009

**Free Paper Session**

**Moderators:** W. Ceelen (Gent)
D. Burnon (Bruxelles)

8.30 After hours colorectal surgery: a risk factor for anastomotic leakage
_N. Komen, J.-W. Dijk, Z. Lalmahomed, K. Klop, W. Hop, G.-J. Kleinrensink, H. Jeekel,
R. Schouten, J. Lange (Rotterdam, NL)

8.40 Mortality risk analysis after routine versus selective defunctioning stoma at total mesorectal excision for rectal cancer
_G. Pata, A. D’Hoore, S. Fieuws¹, F. Penninckx (Leuven, Hasselt)

8.50 A randomized controlled prospective trial comparing fleet Phosphosoda® with Moviprep® in patient undergoing rectal surgery
_S. Sagamaa, L. Maes, W. Ceelen, Y. Van Nieuwenhove, D. Van De Putte, K. Van Renterghem, P. Pattyn (Gent)

9.00 Morbidity due to closure of a temporary diversion ileostomy: results from a large consecutive series

9.10 Easy access of preoperative colonoscopy during laparoscopic colectomy for malignancies is mandatory
_D. Arnold, T. Lafullarde, T. Gys (Geel)

9.20 Calcium score: a new risk factor for colorectal anastomotic leakage
_N. Komen, P. Klitsie, J.-W. Dijk, J. Hermans, K. Havenga¹, M. Oudkerk¹, H. Jeekel,
G.-J. Kleinrensink, J. Lange (Rotterdam, Groningen)

9.30 Analysis of factors predicting the quality of total mesorectal excision for rectal cancer
_D. Leonard, S. Fieuws¹, F. Penninckx¹ (Louvain en Woluwe, Leuven)

9.40 Complete pathological response after neoadjuvant chemoradiotherapy for stage II and III rectal adenocarcinoma predicts excellent long term outcome

9.50 Evaluation of the treatment of peritoneal carcinomatosis (PC) of colorectal cancer (CRC) with complete cytoreduction and hyperthermic intraperitoneal preoperative chemotherapy
_D. Hompes, A. D’Hoore, E. Van Cutsem, W. Ceelen¹, M. Peeters¹, K. Van der Speeten¹,
C. Bertrand¹, J. Kerger¹, H. Legendre¹ (Leuven, Gent, Genk, Haine-St-Paul, Yvoir)

10.00 Coffee break

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Thursday, 30th April 2009

**Belgian Association of Surgical Trainees**

**International College of Surgeons – Belgian Section**

**Boudewijn Room**

2.00 The word of the B.A.S.T.-President

*P. Sardari (Antwerpen)*

**Telesurgery**

*Moderators: P. Broos (Leuven)*

*O. Yazar (Bonheiden)*

2.15 Telesurgery; extending the limits of collaboration and knowledge translation

*M. Anvari (Ontario, Canada)*

3.30 **Coffee Break**

**Section of Obesity Surgery – Belgium**

**Boudewijn Room**

**New trends in Obesity Surgery**

*Moderators: B. Navez (Gilly)*

*L. Lemmens (Sint Gillis Waas)*

4.00 The gut rules the brain

*C. Le Roux (London, U.K.)*

4.30 Surgical innovations : SILS, NOTES …

*J. Himpens (Dendermonde)*

4.45 New insights in metabolic surgery (diabetes)

*G. Hubens (Antwerpen)*

5.00 New trends in restrictive surgery

*M. Lannoo (Leuven)*

5.15 Keynote lecture: European criteria for obesity surgery and the role of centres of excellence

*J. Melissas (Crete, Gr)*

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**Programme**

**Thursday, 30th April 2009**

1.30 General Assembly BSCRS

**Albert Hall**

3.30 General Assembly SOSB

**Boudewijn Room**

3.30 General Assembly BSES

**Leopold III Room**

5.30 General Assembly RBSS

**Albert Hall**
Free Paper Session

Moderators: E. Wijtenburg (Hainé-Saint-Paul)
D. Smets (Brussel)

8.30 Long term outcome after laparoscopic adjustable gastric banding
Y. Van Nieuwenhove, A. Stockman, E. Snoeck, H. Vanommeslaeghe, K. Van Renterghem,
D. Van de Putte, W. Ceelen, P. Pattyn (Gent)

8.40 Endoscopic thoracic sympathectomy for posttraumatic complex regional pain syndrome
Raemdonck, A. Sermon, P. Broos, A. Lerut (Leuven)

8.50 Lobectomy with sleeve resection of the pulmonary artery
(Leuven)

9.00 Successful start of transapical aortic valve implantation programme
L. Van Garsse, V. Van Ommen, M. Lance, J. Waltenberger, J. Maessens (Maastricht, NL)

9.10 Combined modality treatment for malignant pleural mesothelioma (MPM)
P. Nafteux, J. Moons, K. Nckaerts, Y. Lievens, J. Vansteenkiste, M. Decramer, W. Van den
Bogaert, A. Lerut (Leuven)

9.20 Concomitant cardiac surgery and pulmonary resection
K. Cathenis, R. Hamerlijnck, F. Vermassen, G. Van Nooten, F. Muysoms (Gent)

9.30 Thyroidectomy using the harmonic focus shears: results from a prospective randomized
trial
N. Abbes Orabi, M. Pirotte, C. Ballesta Ferrer, J. Nardella, L. De Pauw, M. De Meyer,
M. Mourad (Louvain en Woluwe)

9.40 Age over 75 is not a contra-indication for esophageal cancer surgery: comparison
between two matched populations
C. Honoré, A. Al-Azzeh, M. Meurisse, A. De Roover, P. Honoré (Liège)

9.50 Thoracic endometriosis syndrome, a Belgian multicenter experience
E. Gobert, D. Van Raemdonck, C. Meuleman, P. Van Schil*, Y. Sokolow*, E. Wijtenburg*,
M. Radermecker*, J.-O. Defraigne*, W. Coosemans, H. Decaluwé, G. Decker, P. De Leyn,

10.00 Coffee Break

Thursday, 30th April 2009
Thursday, 30th April 2009

Belgian Section of Endocrine Surgery | Leopld III Room
---|---
The BSES-surgeons and the Thyroid Club facing the Parathyroids

*Moderators:* C. Daumerie (Louvain-en-Woluwe)
J. P. Gillardin (Aalst)

2.00 Minimal invasive parathyroidectomy
S. Van Slycke (Marseille, F)

2.30 Hypo-calcemia and hypovitaminose
I. Van Pottelbergh (Aalst)

3.00 Postoperative hypoparathyroidism
B. Carnaille (Lille, F)

3.30 Coffee Break

Belgian Section of Upper G-I Surgery | Leopold III-room
---|---
Management of carcinoma of the hypopharynx

*Moderators:* B. Dillemans (Brugge)
J.-M. Collard (Louvain-en-Woluwe)

4.00 Contribution of the ENT surgeon
M. Hamoir (Louvain-en-Woluwe)

4.20 Contribution of the Radiation oncologist
V. Grégoire (Louvain-en-Woluwe)

4.40 Contribution of the Upper GI surgeon
A. Ruol (Padova, I)

5.10 Contribution of the Plastic surgeon
J. Vranckx (Leuven)

1.30 General Assembly BSCRS
3.30 General Assembly SOSB
3.30 General Assembly BSES
5.30 General Assembly RBSS

Albert Hall
Boudewijn Room
Leopld III Room
Albert Hall
Friday, 1st May 2009

Belgian Section of Hepato-Bilio-Pancreatic Surgery

8.45 Announcement of the first examination of the U.E.M.S. Board of HPB Surgery
X. Rogiers (Gent)

Management of synchronous liver metastases and colorectal cancer
*Moderators:* F. Berrevoet (Gent)
P. Honoré (Liège)

9.00 Limits of curability
T. Chapelle (Antwerpen)

9.20 Diagnosis & staging: work-up standards & future
B. Op de Beeck (Antwerpen)

9.35 The influence of systemic therapy on the sequence & timing of surgery
M. Peeters (Gent)

9.50 Hepatotoxicity from chemotherapy: the impact on resectability and outcome
C. Hubert (Louvain-en-Woluwe)

10.05 Management of colorectal liver metastases after complete response to systemic therapy
B. Topal (Leuven)

10.20 Panel discussion

10.30 *Coffee break*

*Moderators:* T. Chapelle (Antwerpen)
B. Topal (Leuven)

11.00 Radiofrequency ablation: indications & approach
V. Donckier (Bruxelles)

*Surgical treatment: timing, type & approach*

11.15 Colorectal cancer first
W. Ceelen (Gent)

11.30 Liver metastases first
B. Navez (Gilly)

11.45 Colorectal cancer & liver metastases simultaneously
R. Aerts (Leuven)

12.00 Panel discussion

12.20 Conclusion & Take-home messages
B. Topal (Leuven)

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Belgian Group of Endoscopic Surgery

Surgeons working together in the patient’s best interest
Moderators: B. Monami (Liège)
E. Guerin (Charleroi)

Treatment of endometriosis

2.00 Role of the surgeon in the treatment of endometriosis
A. D’Hoore (Leuven)
Role of the gynecologist in the treatment of endometriosis
S. Weyers (Gent)

2.30 Endoscopic treatment of GERD
The surgeon’s point of view
J. Weerts (Liège)
The gastroenterologists point of view
J. Arts (Brugge)

3.00 Working together over the world
Surgery in Nepal
M. Lal Shrestha (Kathmandu, Nepal)

3.30 Coffee break

Less invasive surgery
Moderators: G. Hubens (Antwerpen)
V. Lucidi (Bruxelles)

From minilaparoscopic to single umbilical access cholecystectomy
Ph. Hauters (Tournai)
LaparoEndoscopic Single Site surgery (LESS) using the Triport
Y. Van Nieuwenhove (Gent)
Single Port Access Laparoscopic cholecystectomy and colectomy
P. Bucher (Geneva, CH)
Friday, 1st May 2009

Young Investigator’s Award session

Moderators: D. Van Raemdonck (Leuven)
Ph. Kolh (Liège)

5.30 Evaluation of the treatment of peritoneal carcinomatosis (PS) of colorectal cancer (CRC) with complete cytoreduction and hyperthermic intraperitoneal preoperative chemotherapy


5.42 Laparoscopic ultrasonography as a good alternative to intraoperative cholangiography during laparoscopic cholecystectomy: results of a prospective study

A. Hublet, A. Dili, B. Mansvelt, G. Molle, C. Bertrand (Haine-St-Paul)

5.54 Defining the optimal therapy sequence in synchronous respectable liver metastases from colorectal cancer: a decision analysis approach

E. Van Dessel, K. Fierens, P. Pattyn, Y. Van Nieuwenhove, M. Peeters, N. Van Damme, F. Berrevoet, W. Ceelen (Gent)

6.06 Complete pathological response after neoadjuvant chemotherapy for stage II and III rectal adenocarcinoma predicts excellent long term outcome


6.18 Concomitant cardiac surgery and pulmonary resection

K. Cathenis, R. Hamerlijnck, F. Vermassen, G. Van Nooten, F. Muysoms (Gent)

Members of the Jury:
B. Carly, D. Van Raemdonck, L. Michel, J. Lamote, J. Weerts, H. Van Damme, Ph. Kolh

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Belgian Section of Abdominal Wall Surgery
Belgian Society of Surgical Oncology

Management of tumours of the abdominal wall
Moderators: I. De Wever (Leuven)
            I. El Nakadi (Bruxelles)

9.00   Management of a patient with an abdominal wall tumour
       S. Bonvalot (Paris, F)                    63

9.25   The surgical management of soft tissue tumours arising in the abdominal wall
       A. Hayes (London, U.K.)                  64

9.50   How to reconstruct large abdominal wall defects after resection?
       J. Vranckx (Leuven)                     65

10.15  Questions and answers

10.30  Coffee break
Friday, 1st May 2009

**Lok-Glem group n° 1273**
Belgian Association for Cardio-Thoracic Surgery

**Improving Thoracic surgical care in Belgium**

**Data Acquisition in Thoracic Surgery**
*Modulators: A. Poncelet (Bruxelles) T. Lerut (Leuven)*

11.00 The LOK-GLEM group n° 1273; a national quality control group on thoracic surgery
* D. Van Raemdonck (Leuven)*

11.10 The thoracic database at Hôpital Erasme
* Y. Sokolow (Bruxelles)*

11.20 The thoracic database at University Hospital Antwerp
* J. Hendriks (Antwerpen)*

11.30 The thoracic database at University Hospital Gent
* F. De Ryck (Gent)*

11.50 The ESTS Thoracic Surgery Database and Accreditation
* A. Brunelli (Ancona, I)*

**Multidisciplinary Collaboration in Thoracic Surgery**
*Modulators: M. Cappello (Bruxelles) P. Van Schil (Antwerpen)*

12.00 Thoracic Surgery with the aid of the ENT surgeon
* P. Nafteux (Leuven)*

12.10 Chest wall resection with the aid of the plastic surgeon
* E. Dajbog, E. Wijtenburg (Jolimont-Tubize-Nivelles)*

12.20 Thoracic spine surgery with the aid of the thoracic surgeon
* B. Depreitere (Leuven)*

12.30 The polytraumatized patient: when to call the thoracic surgeon?
* F. Pons (Clamart, F)*

12.40 Extended Thoracic Surgery: when to call the cardiac surgeon?
* A. Poncelet (Bruxelles)*

12.50 General Discussion
Friday, 1st May 2009

Belgian Society of Vascular Surgery Boudewijn Room

Belgian Young flowmasters forum

2.00 Iliac aneurysm by laparoscopic approach
A. Nguyen, L. Amond, P. Remy, C. D’Hont, H. Massin (Charleroi)

2.12 Superficial femoral artery, more than 2 years occluded ... endovascular approach?
S. Depuydt, J. De Letter (Brugge)

2.24 Multiple vascular complications in a context of collagenopathy: treatment strategy?
M. Pirotte, V. Lacroix, P. Astarci, J. Funken, F. Hammer, R. Verhelst (Louvain-en-Woluwe)

2.36 Midaortic syndrome: cause of a pancreaticoduodenal aneurysm
F. Verbrugge, W. Lansink, L. Stockx, G. Lauwers, K. Vanslembroek, S. Schepers, H. Shroë (Genk)

2.48 All in the family: thrombolysis on Friday afternoon
V. Hartman, M. Voormolen, J. Hendriks, M. De Maeseneer, C. Vandenbroek, P. Van Schil, P. Lauwers (Antwerpen)

3.00 Stenting the aortic bifurcation: selfexpandable? Balloon expandable? Probably both ...
J. Callaert, M. Bosiers, K. Deloose (Dendermonde)

3.12 Endoluminal and surgical exclusion of multiple anastomotic pseudoaneurysms in one single patient
B. Moors, R. Vossaert, M. Martens (Zottegem)

3.30 Coffee break

4.00 Vascular tumours: to involute or to excise?
M. Goethals, L. Depypere, K. Hervelde, L. Parmentier, P. Depuydt (Oostende)

4.12 Endovascular exclusion of a chronic contained rupture of an abdominal aortic aneurysm
W. Metsenmakers, J. Duchateau, J. Vanhoenacker, Y. Tielemans, P. De Vleeschauwer, J. De Leersnyder (Duffel)

4.24 When the dots are no longer connected ...
P. Lerut, I. Fournel, S. Van Cromhaut, G. Sergeant, K. Daenens, S. Houthoofd, A. Nevelsteen (Leuven)

4.36 Persistent sciatic artery aneurysm
D. Bataille, Y. De Bast, G. Callebaut, I. De Quin, C. Goffin, Y. Dernier, B. Bellens (Bruxelles)

4.48 Periaortitis five years after insertion of a stent graft for an infrarenal aneurysm
A. de Buck, N. De Brucker, F. D’Heygere, L. Van Lysebeth, H. Ceuppens (Kortrijk)

5.00 An unusual form of ruptured abdominal aortic aneurysm
A. Laungani, D. Derouck, H. Van Damme, J. Defraigne (Liège)
**Friday, 1st May 2009**

### Short communications – Free Video session

**Leopold III room**

**Moderator:**  
J. Closset (Bruxelles)  
M. Vanderveken (Antwerpen)

8.30 Medico-surgical management of iatrogenic colonoscopic perforation in an oncological institute: an 11 years’ retrospective study  

8.35 THD, two years’ experience  
*C. Firket, A. Tabech, J. Rossat*, R. Algaba (Bruxelles, 'Lausanne, CH)

8.40 Temporary defunctioning stoma in the surgical treatment of low rectal cancer with concomitant neo-adjuvant therapy: not a hazardous decision  
*C. Peeters, T. Lafullarde, T. Gys (Geel)*

8.45 Circular ‘superelastic’ compression anastomosis: the Belgian experience  

8.50 Eras, collaborating in perioperative care  
*K. Lauwers, J. Hellemans, F. Van Elst, D. Vervloesem, M. Vanderveken, P. Willemsen (Antwerpen)*

8.55 Modified margin controlled surgery for the treatment of non-melanoma skin tumours  
*J. Van Dijck, T. Gys, C. Molder ez (Geel)*

9.00 Logistics and technical expertise for selective embolisation do not improve outcome during conservative treatment for blunt splenic injury  
*T. Sablon, F. Berrevoet, L. Defroyne, X. Rogiers, B. de Hemptin ne, R. Troisi (Gent)*

9.05 Patients suffering from chronic pancreatitis with an inflammatory mass in the pancreatic head benefit significantly from a Frey procedure at long term follow-up  
*A. Vanlander, F. Berrevoet, F. Goudsmedt, H. Peeters, X. Rogiers, B. de Hemptinne, R. Troisi (Gent)*

9.10 Assessing impact of quality of life (QOL) on postoperative length of stay (LOS) after esophagectomy for cancer of the esophagus and gastroesophageal junction (GEJ)  

9.15 Reliability of hand-sewn gastro-jejunal anastomosis in laparoscopic gastric bypass: results of 100 consecutive patients  
*K. Kothonidis, B. Navez, M. Mourad*, R. Detry* (Charleroi, *Louvain en Woluwe*)

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9.20 Iatrogenic femoral pseudoaneurysms: predictive factors for primary failure of ultrasound guided thrombine injections (UGTI)  
**SC 11**  
*V. Decoene, K. Von Kemp (Brussel)*

9.25 Non-randomized clinical trial comparing endovenous laser ablation of the great saphenous vein versus high ligation and stripping in patients with superficial vein insufficiency: pain, cost and work loss  
**SC 12**  
*I. Schrouff, J. Quaniers, H. Van Damme, J.-O. Defraigne (Liège)*

**Free Video session**  
*Moderators: M. Vanderveken (Antwerpen)*  
*J. Closset (Bruxelles)*

9.30 Laparoscopic fenestration of an echinococcal cyst of the liver  
**V 1**  
*A. Van Schaik, S. Van Cauwenberge, T. Feryn (Brugge)*

9.40 Salvage procedure after failed laparoscopic adjustable gastric banding in the super-obese patient: laparoscopic adjustable banded gastric bypass  
**V 2**  
*S. Van Cauwenberge, S. Lambert, B. Dillemans (Brugge)*

9.50 Hybrid transvaginal cholecystectomy in humans: mini-laparoscopy and natural orifice extraction (NOE) technique  
**V 3**  
*D. Lipski, G. Vasilikostas, G. B. Cadière (Bruxelles)*

10.00 Thoracoscopic resection of a mediastinal neurogenic tumour, combined with port-access mitral valve repair: a video presentation  
**V 4**  
*B. Defoort, D. Goossens, R. Hamerlijnck, F. Muysoms, D. Claeyss (Gent)*

10.10 Less is more: future or stepstone to notes?  
**V 5**  
*K. Fierens, K. Van Renterghem, D. Van de Putte, W. Ceelen, Y. Van Nieuwenhove, P. Pattyn (Gent)*

10.20 First laparoscopic living donor hepatectomy for pediatric liver transplantation in Belgium  
**V 6**  
*R. Troisi, B. Van den Bossche, M. Sainz-Barriga, F. Berrevoet, X. Rogiers, B. de Hemtintne (Gent)*

10.30 Coffee Break
## Friday, 1st May 2009

### Belgian Section of Breast Surgery

**Moderators:**
- I. Tamigneaux (Bouge)
- N. Degrieck (Gent)

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<td>11.00</td>
<td>Introduction in ductal anatomy and the problem of nipple discharge</td>
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<td>J. Lesaffer, L. Proot (Brugge)</td>
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<tr>
<td>11.10</td>
<td>Breast ductoscopy: Ductoscopy from a diagnostic to an interventional procedure and its</td>
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<td>future perspective</td>
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<td>M. Hünerbein (Berlin, D)</td>
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<td>11.40</td>
<td>Pathological evaluation of ductal samplings</td>
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<td>C. Bourgain (Brussel)</td>
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<td>12.00</td>
<td>Surgical decision making in women presenting with nipple discharge</td>
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<td>A. Smee, R. Christiaens (Leuven)</td>
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### Belgian Society of Surgical Oncology

**Moderators:**
- F. Fivelz (Antwerpen)
- I. El Nakadi (Bruxelles)

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<td>Stems cells in colo-rectal cancer</td>
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<td>2.45</td>
<td>New biologicals and their impacts on surgery</td>
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### Ovarian Cancer

**Moderators:**
- W. Ceelen (Gent)
- P. Marchettini (Namur)

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<td>Overview of the pathology. Behaviour of ovarian cancer cells. Place of Chemotherapy</td>
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<td>P. Vuylsteke (Namur)</td>
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<td>4.25</td>
<td>Implications and complications on the urinary tract</td>
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<td>P. De Kuypner (Gent)</td>
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<td>4.40</td>
<td>Pelvic resection for local ovarian cancer</td>
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<td>A. Makar (Antwerpen)</td>
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<td>5.05</td>
<td>Handling of stage III and IV ovarian cancer</td>
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### General Assembly

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Saturday, 2nd May 2009

Ethics session

Moderators: L. Michel (Yvoir)
D. Van Raemdonck (Leuven)

Surgery and innovation: ethical issues

9.00 Deontological aspects of medicine, more specific for the surgeon in a changed social environment
Aspects déontologiques de la médecine, en particulier pour le chirurgien dans une société qui a changé
Deontologische aspecten van de geneeskunde, meer bepaald voor de chirurg in een veranderend maatschappelijk kader
M. Deneyer (Orde der Geneesheren, Brussel)

9.25 The patient, the society and the economic impact of new technologies
H. Hellinckx (Unamec, Brussel)

9.50 The surgeon facing new procedures and emerging technologies. How does he respond to innovation?
A. Clara (Barcelona, E)

10.15 Discussion

Belgian Association of Cardio-Thoracic Surgery

Ethics session

11.00 Health technologies assessment in cardiac surgery: the KCE view
A. Van den Bruel (Leuven)

11.30 History of cardiac surgery in Belgium
R. Suy (Leuven)

12.00 Report from the database committee: 5-year data reporting: a time for a change?
B. Stockman (Antwerpen)

12.30 Report from the College of Cardiac Surgery: are we using enough arterial grafts?
I. Rodrigus (Antwerpen)

10.30 General Assembly BSAWS
12.30 General Assembly BSHBPS
12.30 General Assembly BSBS
3.30 General Assembly BGES
3.30 General Assembly BSSO

Boudewijn Room

Albert Hall
Leopold III Room
Royal Belgian Society for Surgery

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Theme : Minimally Invasive Surgery
President : M. Meurisse
Venue : Knokke

2nd BSW  3-4-5th May 2001
Theme : Evidence Based Surgery
President : H. Bostoen
Venue : Knokke

3rd BSW  2-3-4th May 2002
Theme : Surgical Pitfalls and Complications
President : R. Sacré
Venue : Knokke

4th BSW  1-2-3rd May 2003
Theme : Tomorrow’s surgery seen today. From cell engineering to innovative techniques and transplantation
President : J.P. Squifflet
Venue : Ostend

5th BSW  6-7-8th May 2004
Theme : Quality of Surgical Care in Belgium
President : F. Penninckx
Venue : Ostend

6th BSW  28-29-30th April 2005
Theme : Quality of Life in Surgery
President : J. Van de Stadt
Venue : Ostend

7th BSW  4-5-6th May 2006
Theme : The Role of the Surgeon as a Member of a Multidisciplinary Team
President : G. Hubens
Venue : Ostend

8th BSW  2-3-4-5th May 2007
Theme : Decision making in Surgery
President : D. Claeyts
Venue : Ostend

9th BSW  30th April-1-2-3rd May 2008
Theme : The Place of Guidelines in Daily Surgery
President : J. Weerts
Venue : Ostend

10th BSW  29-30th April-1-2nd May 2009
Theme : Surgeons Collaborating in the Patient’s Best Interest
President : D. Van Raemdonck
Venue : Ostend
11th BSW 28-29-30th April-1st May 2010 (subject to change)
Theme: Vanishing role of the Surgeon in Emergency and disaster situations?
President: L. Michel
Venue: Ostend
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Abstracts of Free Papers
FP1. — MULTIDISCIPLINARY APPROACH FOR HEMIFACIECTOMY FOR INVASIVE BASAL CELL CARCINOMA AND ATTEMPT OF POSTOPERATIVE REHABILITATION.
C.H.U. Brugmann, Bruxelles, Belgium.

From time to time, surgeons are to deal with cases which represent a challenge for patients with devastating and disfiguring carcinoma of the face. The reported case illustrates such a condition necessitating the contribution of head and neck surgeons, neurosurgeons and plastic surgeons with maxillofacial specialists at aiming cure of the disease and restoration of facial contours.

A 77-year-old male patient, with a history of ulcus rodens involving the face and recurring several times on a period of 13 years, is presented. Owing to the fact that this extensive tumour compromised the right eye and ear and was in close contact with meninges, a radical hemifaciectomy including unroofing of the anterior brain, orbit exenteration and ear resection with pavilion and mastoidectomy and parotidectomy and mandibular resection, was accepted by the patient. A multidisciplinary team operated together for radical excision and coverage of the operating field with a latissimus dorsi pedicle flap.

The patient recovered well from surgery, and planning for a facial rehabilitation with extraoral implants was initiated after 3 months. Unfortunately, some complaints in the G.I. tract necessitated a CT scan and a coloscopy, providing a diagnosis of carcinoma of the colon with liver metastases. In this condition, any attempt for reconstruction of the facial contours was cancelled. Pictures of successful facial rehabilitation with intraosseous implants and epithesis from other cases are presented.

This case illustrates progress in extended operative criteria thanks to more accurate imaging investigations and to more sophisticated surgical improvements by means of a multidisciplinary team approach.

FP2. — WHY THE MULTIDISCIPLINARY APPROACH MAY REPRESENT A KEY FOR BETTER RESULTS IN THE TREATMENT OF THE DIABETIC CRITICAL LIMB ISCHEMIC WOUNDS: PRACTICE IN A DEPARTMENTAL “DIABETIC FOOT” GROUP.
Hôpital Princesse Paola, Marche-en-Famenn, Belgium.

From September 2002 until February 2008, a consecutive series of 178 limbs with diabetic ischemic wounds in 163 patients were treated by combined multi-level angioplasties as the primary therapeutic approach. All patients were followed by a multidisciplinary “diabetic foot team” (vascular surgeons, diabetologists, orthopaedic surgeons, radiologists, plastic surgeons added to specialised nurses and orthotists) in a “third line” diabetic care institution that assembles two departmental hospitals. Mean follow-up was 23.3 months (in the range 1-64 months).

Initial technical success was noted in 151 limbs (84%). The cumulative patency at 12, 24 and 60 months were 77%, 64% and 62%. The aggregate clinical success rates at the same intervals were : 84%, 75% and 69%, while the corresponding limb salvage proportions revealed : 88%, 82% and 79%, respectively. A comparison by log-rank (Mantel-Cox) test between the limb salvage rates in the first, versus the second half of our experience showed a significant difference (Chi square = 4.239, p = 0.039) with better results in the recent years, owning a constituted and probably more effective multi-specialised team.

Our experience suggests that limb salvage in diabetic CLI wounds may be favorably influenced by a multidisciplinary convergence and surveillance of the patients. Although appropriate revascularisation is crucial for limb rescue, a pluralist control of the attending risk factors participating in the wound healing process might be of matchless importance as well.
FP3. — THORACOABDOMINAL AORTIC ANEURYSM REPAIR: RESULTS OF CONVENTIONAL OPEN SURGERY.
Sint-Antonius Ziekenhuis, Nieuwegein, Netherlands.

The aim of the study was to report the experience of the surgical repair for thoracoabdominal aortic aneurysms (TAAAs) over the last 27 years.

We reviewed the prospectively collected data of 571 patients who underwent open TAAA repair between 1981 and 2008. Data were analyzed using univariate and multivariate analysis (logistic regression). Pre-, intra- and postoperative risk factors were used to develop risk models for in-hospital mortality, spinal cord deficit and renal failure.

Seventy patients (12.3%) died in hospital, 30-day mortality was 8.9%, 37 patients (6.5%) required postoperative dialysis. 47 patients (8.3%) developed paraplegia or paraparesis. The incidence of paraplegia in the left heart bypass group was 4.4%. Predictors for hospital mortality were increasing age (Odds Ratio 1.096 per year, 95% CI 1.05 – 1.14) and the need for hemodialysis (Odds Ratio 10, 95% CI 4.7 – 21.1). For postoperative spinal cord deficit, three protecting factors were found: age above 75 years (Odds Ratio 0.14, 95% CI 0.19 – 1.09), presence of a postdissection aneurysm (Odds Ratio 0.4, 95% CI 0.17 – 0.94) and combined use of cerebrospinal fluid drainage and motor evoked potentials (Odds Ratio 0.28, 95% CI 0.14 – 0.56). Urgency (Odds Ratio 4, 95% CI 1.8 – 9) and preoperative serum creatinine level (Odds Ratio 1.007 per micromol/L, 95% CI 1.0 – 1.01) were significant risk factors for renal failure.

Open TAAA repair intrinsically has substantial complications of which spinal cord ischemia and renal failure are the most devastating, despite major progress in the understanding of the pathophysiology and operative strategy.

FP4. — ABDOMINAL WALL CLOSURE AFTER INTESTINAL TRANSPLANTATION: A COLLABORATION BETWEEN TRANSPLANT SURGEONS, ABDOMINAL WALL SURGEONS AND PLASTIC/RECONSTRUCTIVE SURGEONS.

Abdominal wall closure (AWC) > Intestinal transplantation (ITx) is challenging (reduced abdominal domain in ITx candidates) and causes morbidity/mortality.

Our presentation concerns a review of AWC problems in 9 consecutive ITx.

AWC was uneventful in 4 (44%) but caused morbidity (no mortality) in 5 (55%). A three-year-old boy received liver/duodenum/pancreas/bowelITx. AWC could not be achieved primely. He was treated by VACTM, wound manager, reoperations (fistula resections), and skin graft. He is well 4 years postITx. To prevent difficulty in AWC encountered in previous child, extra-skin development was obtained in an 8-year-old girl (while on waiting list) by 2 subcutaneous osmotic-skin-expanders: right epigastrium (440 cc)-right abdominal flank (660 cc). She later received liver/duodenum/pancreas/bowelITx. Primary AWC was achieved. She is well 8 months postITx. Identical strategy was successfully applied in a 30-year-old recipient of segmental ileal Tx from live donor (mother). Expanders were placed 5 months before planned ITx. She is alive 1year postITx (graft was resected due to rejection). Finally, a 35-year-old recipient of bowel Tx and a 55-year-old recipient of liver/duodenum/pancreas/bowelITx in whom primary AWC were achieved developed secondary skin/fascia infections. This was treated with VACTM, and local wound care plus drainage, respectively. The first patient died of wound-unrelated aspergillosis 6 months postITx; the second patient is well 8 years postITx. 3 month & overall survival (F/up: 8 mth/8 yr) is 100 & 77.7%, respectively.

After ITx, AWC causes increased morbidity (but no increased mortality in our series). PreTx skin-expansion should be considered in ITx candidates when primary AWC is thought impossible. secondary wound defects/infections should be aggressively treated. Collaboration of surgical teams with various expertise provides these complex patients with the best outcome.
FP5. — TREATMENT OF GIANT INCISIONAL HERNIAS USING A STANDARDIZED TECHNIQUE OF INTRAPERITONEAL MESH IN COMBINATION WITH COMPONENT SEPARATION TECHNIQUES: MORBIDITY AND MIDTERM RESULTS.

U.Z., Gent, Belgium.

Giant primary or recurrent incisional hernias still remain an enormous challenge for adequate surgical repair. If fascial approximation is impossible or only possible after extreme tension, component separation technique (CST) or Ramirez relaxation incisions are a valid option, in combination with intraperitoneal mesh placement. The aim was to evaluate both perioperative morbidity and follow-up results after using a standardized surgical technique for these enormous fascial gaps.

The experience was retrospectively, single institutionally reviewed in open mesh repair by using an intra-abdominal mesh in combination with known autologous tissue repair techniques. After reducing the hernia content, an intra-abdominal mesh is placed intraperitoneally and attached to the border of the psoas muscles at both sides. Component separation technique is then used in order to cover the prosthesis, sometimes using a remnant of the hernia sac. Postoperative morbidity as well as midterm recurrence rates were evaluated.

During a 3-year period, 22 patients were treated using this technique. Morbidity mainly consisted of seroma in almost all patients, although only 8 patients (36%) needed aspiration. Five patients had superficial wound infections that healed conservatively. Three patients had to be admitted at the ICU for respiratory support after hernia reduction. No mesh infections occurred. Mean hospital stay was 12 days (range 7 to 22 days). The median follow-up was 20 months and so far, although most patients had CT scan evaluation after 1 year, no recurrences were observed.

Combination of an intraperitoneal composite mesh repair with adequate fascia elongation using CST, offers a solid solution in repairing incisional hernias with loss of domain, resulting in acceptable midterm results.

FP6. — INTRAOPERATIVE CHOLANGIOGRAPHY SAFELY LIMITS PREOPERATIVE ERCP IN CASE OF SUSPICION FOR CHOLEDOLITHIASIS.

U.Z., Gent, Belgium.

There is debate about whether intraoperative cholangiography (IOC) should be performed routinely or selectively during laparoscopic cholecystectomy (LC) in patients with suspected choledocholithiasis. The timing of endoscopic retrograde cholangiopancreatography (ERCP) in these patients is also an issue. The experience in our center, is reviewed where a management algorithm limiting ERCP in relation to LC was adopted.

Every LC performed between July 2007 and December 2008 in relation to suspicion for choledocholithiasis, IOC and ERCP were examined. Results of IOC were analysed and the need for postoperative ERCP’s was evaluated.

In total, 197 cholecystectomies were performed, of which 58% were women. In 129 patients, surgery was performed because of cholecystolithiasis and no IOC was performed. Three of these patients had no IOC but needed postoperative ERCP. Forty-four patients (22.4%) had surgery because of cholecystitis. Forty-eight IOCs (24.4% of all procedures) were performed because of cholestasis or previous biliary pancreatitis. A satisfactory run-off was visualised in 62% of patients (n = 30). A transcystic lithiasis extraction was performed in 18 patients, from which 7 were successful (64%) without the need for postoperative ERCP. No common bile duct explorations were performed in this series. In 14 patients, a postoperative ERCP was performed. In 9 patients (64%), a residual obstructive lithiasis was seen treated with sphincterotomy and/or stone extraction.

The data suggest that routine preoperative ERCP cannot be justified. Selective IOC during LC misses relatively few cases of biliary stones; these can be managed safely by experienced endoscopists. Laparoscopic exploration by cholecdochotherapy might even improve these results but might increase morbidity.
FP7. — LAPAROSCOPIC LEFT LATERAL SECTIONECTOMY WITHOUT INFLOW OCCLUSION: THE GOLD STANDARD TECHNIQUE IN NON-CIRRHOTIC LIVER PARENCHYMA?


U.Z., Gent, Belgium.

Laparoscopic anatomical left lobectomy (segments 2-3) (LLS) is increasingly performed and avoidance of inflow occlusion has been proposed. The medical files of 30 consecutive patients undergoing LLS for benign or malignant disease in non-cirrhotic liver parenchyma without hilar clamping were prospectively reviewed.

Between June 2005 and December 2008, 30 patients underwent LLS in the institution. The mean age was of 54 ± 15 years and the male/female ratio of 7/23. According to this study LLS was performed with ultrasonic scalpel without hilar clamping.

All patients are alive and well after a median follow-up of 16 months (range 1-42). LLS was performed either for benign disease (n = 16) or for metastases (n = 14). Fourteen patients (46.6%) had a previous abdominal operation and in 3(10%) the LLS was followed by partial bowel resection. Median resection and operation time were of 80 min (30-180) and 215 min (120-300) respectively. Median blood loss was of 50 ml (0-500) and no transfusion was required. No conversion to laparotomy occurred and overall morbidity was 10% (n = 2 grade 1 and n = 1 grade 2). The median hospital stay was 4 days (4-10). Histology revealed up to 60% macrovesicular steatosis in 6 pts (20%) and a Metavir score A2F2 in up to 12 (40%) of patients.

Laparoscopic left lateral sectionectomy without portal clamping can be safely performed in non-cirrhotic livers with minimal blood loss and a favorable outcome. According to this experience, LLS should be considered as the gold standard approach in patients without underlying cirrhosis.

FP8. — INTEREST OF INTRAOPERATIVE PARATHORMONE MEASUREMENT: RESULTS FROM A PROSPECTIVE STUDY.


Cliniques Universitaires St. Luc, Louvain-en-Woluwe, Belgium.

The aim of this study is the prospective evaluation of the intraoperative parathormone monitoring (Io-PTH) as a guidance during surgery for primary hyperparathyroidism (PHPTH) and to assess the efficiency of preoperative exams to locate adenomas.

From April 2001 to October 2007, 180 patients were operated for PHPT (conventional or selective approach) and were prospectively considered for Io-PTH monitoring to guide surgery. Blood samples were taken from all patients according to the same design: one at the anaesthesia induction, one at skin incision, one at the abnormal gland removal and the last ones: 10, 20 and 30 minutes later. A 50% decrease from the baseline reached between 10 to 30 minutes after adenoma removal was indicative of cure and the end of surgery. Adenoma location was assessed preoperatively by ultrasonography and scintigraphy. The median follow-up (FU) was 38 months (range 1-75).

For four patients, the Io-PTH profile was abnormal and a second lesion was removed after further surgical exploration. Among the 176 patients with a significant decrease in Io-PTH, 8 patients presented a recurrence of hypercalcemia during the FU. Preoperative echography and scintigraphy were concordant in 63%. The preoperative echography and scintigraphy matched respectively in 60.8% and 74.5% of cases with the intraoperative observations. After a median FU of 38 months, 95.56% of patients were cured.

Io-PTH monitoring during surgery may help to guide surgery and allows reducing the level of recurrence. Scintigraphy is the most performing exam to locate adenomas.
FP9. — CLINICAL EFFECTIVENESS OF THE TRANSVERSUS ABDOMINIS PLANE (TAP) BLOCK IN PATIENTS UNDERGOING ABDOMINAL SURGERY.

Worthing Hospital, West Sussex, United Kingdom.

Various modalities are available for effective postoperative pain management following abdominal surgery. Recently, there have been moves toward nerve blocks, located between transversus abdominis and internal oblique muscles (TAP block) in the hope that it is effective for pain management with advantages of fewer side effects. This meta-analysis examines whether TAP block is effective for postoperative pain control.

The electronic databases available were found and a meta-analysis on available randomised controlled trials (RCT) on the use of TAP blocks was conducted.

On average, patients with TAP block required less morphine compared to those without [random effects model: SMD -8.12, 95% CI (-13.0, 3.22), z = -3.25, p < 0.01]. All 3 RCTs identified a longer time interval to first request of morphine in the TAP block group. No statistical difference was found with respect to pain scores. Categorical nausea scores were higher in the placebo group versus the TAP group and were statistically significant in two studies.

Patients with TAP block require less morphine postoperatively and appear to have a better side effect profile. The literature leans favourably towards TAP block as an appropriate mode of easing postoperative pain.

FP10. — IS MALNUTRITION FREQUENTLY PRESENT IN THE SURGICAL PATIENT? HOW TO KNOW IT AND WHY.

S. De Waele, S. Mattens, G. Delvaux.
A.Z., Brussel, Belgium.

Malnutrition and underweight are well-known risk factors in surgical patients. A body weight loss of more than 10% is an independent risk factor of postoperative mortality in colorectal cancer patients. Malnutrition delays wound healing; increases the risk of infection and lengthens hospital stay. The aim of this study was to determine the prevalence of malnutrition in our surgical patients.

Surgical patients were prospectively screened on malnutrition at admission on the surgical ward using the Nutritional Risk Score 2002. When malnutrition was detected, the hospital’s multidisciplinary nutrition team was contacted and in collaboration with the treating surgeon a nutritional care plan was implemented.

Between February 2008 and November 2008, 287 consecutive surgical patients were screened. Thirty-eight patients (13%) were malnourished on admission and 76 (26%) proved to be at high risk of malnutrition. One hundred and seventy-three patients (61%) had no increased risk on malnutrition preoperatively. One hundred and fourteen nutritional care plans were implemented.

In the university hospital, malnutrition is a frequently present risk factor in the surgical patient. As it is not a priority to the treating surgeon but can influence the outcome of the patient, a collaboration with physicians trained on clinical nutrition and paramedical staff is strongly recommended.
FP11. — COMPARISON BETWEEN LAPAROSCOPIC, NOTES TRANSGASTRIC AND NOTES TRANS-COLONIC PERITONEAL EXPLORATION AND LAPAROSCOPIC ULTRASONOGRAPHY IN PIGS.


It has been hypothesized that NOTES (Natural Orifice Transluminal Endoscopic Surgery) procedures might induce less surgical trauma and less acute phase response as compared with laparoscopy. The aim of the study was to compare the systemic production of cytokines and acute-phase reactants, the rate of intraperitoneal infection in a randomised control trial comparing Diagnostic Laparoscopy (DL) with Transgastric (TG) or Transcolonic (TC) NOTES in pigs. Eighteen pigs divided in 3 groups underwent a classic DL, or a TG or a TC NOTES peritoneal exploration + liver US + peritoneal and liver biopsy. NOTES peritoneal access was performed with needle knife (+ balloon dilation for TG). Closure was either done by clipping or by use of T-bars. Inflammatory response was evaluated by sequential measurements of C-reactive protein, IL-6 (ELISA), IL-6 mRNA (PCR) and TNF-alpha levels. Bacteriological sampling in the peritoneal fluid and pathologic evaluation of the scars and visible lesions were performed during the procedure and at necropsy.

All the planned procedures were done in all pigs. Closure was successful in all pigs except 1 with a TC approach that developed peritonitis and paracolic abscess. One pig in the NOTES TC group died of septic shock. One colo-gastric fistula was seen after T-bars closure during TG NOTES. No differences in CRP levels and interleukin measurements could be demonstrated between all groups.

NOTES approach was more complicated than laparoscopy. No statistical differences in the acute phase response could be seen. Closure with T-bars seems to be more efficient for both accesses.

FP12. — SURGICAL TREATMENT OF HEPATIC METASTASES FROM BREAST CANCER.


Hôpital Erasme, Bruxelles, Belgium.

Selection for liver surgery in patients with breast liver metastases (BLM) remains debated. The objective of our work is to review the prognostic value of several variables in these patients.

Patients operated for BLM between 2005 and 2008 were reviewed. The predictive values of tumour stade, lymph node status, initial number of BLM, tumour-receptors, interval between primary tumour and BLM were evaluated. Among recurrent patients, we distinguished early recurrence (< 6months post-surgery : ERP) and delayed recurrence (> 6 months : DRP).

Twenty-nine women (median age : 44, range : 29-74) were reviewed. Primary tumor were 25 invasive canalair, 2 mixed, 1 lobular and 1 tubular carcinoma. Surgical treatment consisted in radiofrequency in 45%, surgical resection in 38% and combined procedure in 17%. 28/29 patients received neoadjuvant treatments. After median follow-up of 103 months (19-223) and 25.5 months (5-80) from primary diagnosis and BLM diagnosis, overall and disease free survival were 41% and 28% respectively. In patients who recurred, 27% were ERP and 45% DRP. A tendency of higher initial LM number was found in ERP vs DRP (2.6 vs 1.8) but none of the factors evaluated were able to distinct ERP from DRP.

A quarter of the patients operated for BLM recurred in the 6 months following surgery. In these patients, even in the absence of controlled study, the benefit of surgery is most probably negligible. Currently, none of the classical predictive factors was able to prospectively identify those patients, underlying the crucial need for new accurate prognostic tools.
FP13. — LONG-TERM QUALITY OF LIFE AFTER HEPATICOJEJUNOSTOMY FOR IATROGENIC BILE DUCT INJURY FOLLOWING CHOLECYSTECTOMY.
F. Akin, F. Berrevoet, X. Rogiers, B. De Hemptinne, R. Troisi.
U.Z, Gent, Belgium.

A hepaticojejunostomy is the most frequently performed reconstruction method for iatrogenic injuries of the biliary tract during laparoscopic cholecystectomy. Data reporting the long-term outcome of those interventions, including patients’ quality of life, are limited. The aim was to assess both long-term outcome and quality of life (QOL) after hepaticojejunostomy for this type of surgery.

Twenty-two patients undergoing hepaticojejunostomy at the University Hospital of Ghent after iatrogenic bile duct injuries were recorded. All patients were asked to visit the outpatient clinic and were interviewed considering their quality of life, measured by the validated questionnaire SF-36, EQ-5D and FACT-G. Long-term complications as cholangitis, anastomotic problems and incisional hernias were noted.

The median follow-up after the biliary surgery was more than 5 years. Two patients died during follow-up unrelated to the surgery. All but one of the potential respondents to the survey completed all of the questionnaires. Almost all patients had good vitality scores; emotional well-being results were good in 79% of cases. Only 21% of the patients had limitations on social functioning. More than 60% of the patients described their health status as good or very good, and only 1 patient referred to the biliary surgery as the main reason. The mean EQ-5D VAS score was 74 [40-100]. Anastomotic problems as well as episodes of cholangitis were unfrequent.

The quality of life after hepaticojejunostomy gives an excellent outcome on social, emotional and mental domains. Although bile duct injuries should be prevented at all times, long-term outcomes in tertiary centres for hepatobiliary surgery seem more than acceptable.

FP14. — INCREASED RESECatabilitY RATE OF COLORECTAL LIVER METASTASES WITH NEO-ADJUVANT THERAPY WITH BEVACIZUMAB AND 5FU +OXALIPLATINUM OR IRINOTECAN.
U.Z., Gent, Belgium.

Patients with colorectal liver metastases (CRM) and initially non-resectable metastases might benefit from preoperative chemotherapy (CTX) with the hope for disease resection. Bevacizumab (BV) seems to improve outcomes in patients with CRM but may induce chemotoxicity with increased perioperative morbidity. The experience with BV-based regimen was retrospectively reviewed.

From June 2007 to February 2009, 52 patients with non-resectable CRM, received BV-based CTX regimen (Folfox/Folfiri). CTX was administered bi-weekly until 6 cycles. The sixth cycle did not include BV resulting in 5 w between the last administration and liver resection (LR).

After a mean of 5.2 ± 1.3 cycles with BV, 24/52 (46%) patients became resectable and underwent LR (objective response to neoadjuvant CTX on PET-CT or histology). Downstaging of CRM was observed in 33% of cases whereas 1 patient was considered not resectable at laparoscopy. Eleven patients (46%) underwent a major hepatectomy whereas minor and wedge resections were done in 8 and 4 other respectively. Neither increased per-operative bleeding nor wound healing complications were recorded. Two patients required blood transfusions. No postoperative mortality occurred and 2/24 (8%) major complications were recorded (intra-abdominal abscess and postoperative bleeding). Radical resection (R0) was achieved in 14/23 (61%) patients. After a mean FU of 6.4 m (range 1-18 m) all patients are alive with recurrence in six patients until now (only tree of these were R0 resections).

Bevacizumab-based CTX regimen does not increase complication rate permitting to allow potentially curative liver resection in more than 46% of patients with initially non resectable CRM. A longer FU is needed to understand the real impact of this regimen on disease-free survival.
FP15. — SIMULTANEOUS RESECTION OF SYNCHRONOUS LIVER METASTASES AND COLORECTAL CANCER INCREASES MORBIDITY AND MORTALITY WHEN MAJOR HEPATECTOMIES ARE PERFORMED.


Simultaneous resection of the rectal primary neoplasm with synchronous liver metastases (LM) is warranted, because this is the only strategy with curative potential. Combined resection remains controversial because of the risk of morbidity. We reviewed our experience of combined colorectal and LM surgery in patients in stage IV of colorectal cancer (CRC).

From October 1995 to February 2009, 14 out of 1268 (1%) liver resections were combined to the resection of primary CRC. Mean patients age was 59.6 ± 12.5 y. Indications for combined surgery were mainly due to logistic and technical reasons.

Mean size of CRM was 4.7 ± 4.5 cm. The type of liver resection consisted on 6 (42.9%) major, 6 (42.9%) minor hepatectomies and 2 (14.2%) atypical resections. The length of hospital stay was 20 ± 12.2 days. Seven patients had a major complication consisting in: liver insufficiency with encephalopathy (n = 1); liver abscess (n = 1); ARDS (n = 2); pneumonia (n = 1). In two patients with intraabdominal abscesses a dehiscence of colorectal anastomosis was recorded requiring surgical exploration and diverting stoma. When comparing morbidity between major and minor hepatectomies we could withdraw respectively 4 severe (66.7%), 2 mild or no (33.3%) complications; and 3 (37.5%) severe and 5 mild or no (62.5%) complications (p = 0.24; Fisher exact). After a median FU of 16m (range 1-82 m), nine patients deceased, nearly all 8/9 (88.9%) due to progression of malignancy. Overall survival is 5 (35.7%) patients.

Simultaneous liver and colorectal resection in patients with stage IV CRC is feasible but patients undergoing major hepatectomies are at risk of severe morbidity potentially leading to increased mortality rate. Patient’s medical condition, age, extent of primary and metastatic disease should all influence the choice of the appropriate strategy.

FP16. — DEFINING THE OPTIMAL THERAPY SEQUENCE IN SYNCHRONOUS RESECTABLE LIVER METASTASES FROM COLORECTAL CANCER: A DECISION ANALYSIS APPROACH


Approximately 5%-20% of colorectal cancer (CRC) patients present with synchronous potentially resectable liver metastatic disease. Preclinical and clinical studies suggest a benefit of the ‘liver first’ approach, i.e. resection of the liver metastasis followed by resection of the primary tumour. A formal decision analysis may support a rational choice between several therapy options.

Survival and morbidity data were retrieved from relevant clinical studies identified by a Web of Science® search. Data were entered into decision analysis software (TreeAge® Pro 2009, Williamstown, MA, USA). Transition probabilities including the risk of death from complications or disease progression associated with individual therapy options were entered into the model. Sensitivity analysis was performed to evaluate the model’s validity under a variety of assumptions.

The result of the decision analysis confirms the superiority of the ‘liver first’ approach. Sensitivity analysis demonstrated that this assumption is valid on condition that the mortality associated with the hepatectomy first is < 4.5%, and that the mortality of colectomy performed after hepatectomy is < 3.2%.

The results of this decision analysis suggest that, in patients with synchronous resectable colorectal liver metastases, the ‘liver first’ approach is to be preferred. Randomised trials will be needed to confirm the results of this simulation based outcome.
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FP17. — POLYCYSTIC LIVER AND KIDNEY DISEASE: LIVER TRANSPLANTATION ALONE OR COMBINED LIVER KIDNEY TRANSPLANTATION?


Polycystic liver disease (PLD) is frequently associated with autosomal dominant polycystic kidney disease (ADPKD). Indications for combined liver and kidney transplantation (CLKT) are dialysis-dependent status and overt terminal renal failure. If renal insufficiency is less pronounced, the indication for an associated kidney transplantation (KT) is controversial. We review our experience with isolated liver transplantation (LT) and CLKT in patients with PLD. Between 1995 and 2008, 37 patients underwent LT for PLD. 3 with isolated PLD received LT alone. Thirty-four patients had combined PLD and ADPKD: 19 underwent isolated LT and 15 CLKT. Among the 15 CLKT patients, 10 were dialysis-dependent at time of the transplantation whereas KT was performed preemptively in 5. The 1 and 5 year patient and liver graft survival are 95% and 90%, respectively. Of the 19 patients who underwent isolated LT for combined PLD and ADPKD: 3 received a KT 9, 9 and 8 years post-LT because of evolving ADPKD and calcineurin inhibitor (CNI) toxicity; 2 developed terminal kidney failure 7 and 9.5 years post-LT; 1 developed acute renal failure post-LT, requiring permanent dialysis.

This series (the largest reported so far) demonstrates excellent survival after LT and CLKT for PLD. Terminal kidney failure after isolated LT is due to evolving renal polycystosis and CNI toxicity. In patients with preserved or mildly affected renal function and who receive isolated LT, strategies to spare the nephron mass are essential. In patients with evolving renal impairment pre-transplant, CLKT is preferred, anticipating the need for later KT.

FP18. — LAPAROSCOPIC ULTRASONOGRAPHY AS A GOOD ALTERNATIVE TO INTRAOPERATIVE CHOLANGIOGRAPHY DURING LAPAROSCOPIC CHOLECYSTECTOMY: RESULTS OF A PROSPECTIVE STUDY.


Intraoperative cholangiography (IOC), used routinely or selectively, is the standard method for bile duct imaging during cholecystectomy. Laparoscopic ultrasonography (LUS) has emerged as a possible, safe and quick alternative. This study examined the performance of these two methods to detect common bile duct stones (CBDs) and to prevent common bile duct injury (CBDI).

A prospective database registered 968 consecutive cholecystectomies (925 laparoscopy, 18 (1.9%) laparotomy and 25 (2.6) conversion). The systematic use of the IOC was gradually replaced by a systematic use of the LUS. The success to delineate and evaluate the CBD, the detection of a CBDs, any type of bile duct complication, especially of CBDI, were registered. The patients were followed at 1 and 6 months.

Six hundred and eighty-five IOC and 269 LUS were performed. Technical failure: 35 IOC (5.1%) and 2 LUS (1%). Detection of CBDs, 31 by IOC (4.5%) and 16 by LUS (6%). 5 IOC were considered as FP (CBDs not confirmed by exploration or follow-up), 1 as FN (1 migration at follow-up) and 1 LUS as FP (corrected by IOC) (sensitivity / specificity respectively of 97.6% / 89.1% and 100 / 93.7%). 5 CBDI detected: none of these could have been prevented by IOC. In our experience, in this prospective study, LUS has been certainly as effective as IOC as a primary imaging technique for bile duct. It permitted to detect CBDs with a high specificity and sensitivity, and was not followed by an increase in CBDI.
FP19. — EXTENDED HEPATECTOMY IMPROVE R RESECTION RATE AND THE PROGNOSIS OF HILAR CHOLANGIOCARCINOMA (KLATSKIN TUMOR) : 68 PATIENTS SINGLE CENTER ANALYSIS.


U.Z., Gent, Belgium.

Hilar Cholangiocarcinoma is a rare tumor accounting for less than 1% of all malignancies. This study was conceived to assess multimodal treatment including surgical approach and to determine postoperative morbidity, mortality rate and prognostic factors for long-term survival.

From May 1992 to December 2006, 68 patients with a Klatskin tumor were evaluated at our institution. Clinicopathological data were analysed and univariate and multivariate analyses carried out to determine significant prognostic factors affecting morbidity and mortality. Mean age was of 53.4 ± 12 years. M/F ratio was of 46/22.

After a median FU of 28 months (1-84), 11/68 (16%) of patients were non resectable (group A) and treated with palliative transtumoral stenting. The other 57 patients (group B) underwent surgery: n = 5 for Bismuth type II; n = 20 for type IIIa; n = 23 for type IIIb and n = 9 for type IV. Median survival was of 48 months in R□ vs. 10 months in R1-R2 resections (p = 0.003). Right or left extended hepatectomies accounted for more than 80% R□ resection. In-hospital mortality was of 3.5%. Overall morbidity rate was of 35%. Factors related to a shorter survival were identified as: lymphatic and perineural invasiveness, R1-R2 resection, AJCC stage and limited hepatectomy. Overall 3 & 5 years patient survival was of 45% and 22% respectively.

Surgical aggressiveness with thorough lymphadenectomy and complete tumor removal increased R□ resections and, consequently, survival. Provided an acceptable surgical mortality as showed, radical oncological surgery was possible in more than 70% of cases.

FP20. — A PROSPECTIVE RANDOMISED CONTROLLED TRIAL SHOWS NO BENEFIT FOR POST-OPE RATIVE ANTIBIOTICS AFTER CHOLECYSTECTOMY FOR ACUTE CHOLECYSTITIS


U.Z., Gent, Belgium.

There is debate about whether postoperative antibiotics are necessary after cholecystectomy in patients with acute cholecystitis. Large sums of money are traditionally spent on antibiotic drugs for prophylaxis and treatment. However, there are no clear indications as to use antimicrobials in acute cholecystitis.

A prospective randomised controlled trial (RCT) comparing 5 days of postoperative intravenous antibiotics to no postoperative antibiotic treatment was performed. Baseline characteristics, time from onset of clinical symptoms, degree of cholecystitis and postoperative complications were analysed. Primary endpoint was the postoperative hospital stay.

In total, 42 patients were treated for acute cholecystitis over a 2 year period, willing to participate in this study. Thirty-eight were male. Most of the patients developed a grade I or II acute cholecystitis with a mean time from onset of 2.8 days. There were no differences between the 2 groups. The mean hospital stay was 2.3 days (range 2-4) for the non-treated patients versus 4.7 days for the treated patients (p < 0.01). There was no difference in morbidity and there was no mortality.

This RCT shows that postoperative antibiotic treatment for grade I and II acute cholecystitis is unnecessary and increases costs without any benefit for the patient.
FP21. — **AFTER HOURS COLORECTAL SURGERY: A RISK FACTOR FOR ANASTOMOTIC LEAKAGE.**


*A.Z. Middelheim, Antwerpen, Belgium.*

Anastomotic leakage is the most feared complication of colorectal surgery. This study aims to increase knowledge of anastomotic leakage by performing an incidence study and risk factor analysis with new potential risk factors in a Dutch tertiary referral center.

All patients who received a primary colorectal anastomosis between 1997 and 2007 were selected by means of operation codes. Patient records were studied for population description and risk factor analysis.

In total, 739 patients were included. Anastomotic leakage (AL) occurred in 64 (8.7%) patients of whom 9 (14.1%) died. Median interval between operation and diagnosis was 8 days. The risk for AL was higher as the anastomoses were constructed more distally ($p = 0.019$). Univariate analysis showed duration of surgery ($p = 0.038$), BMI ($p = 0.001$), time of surgery ($p = 0.029$), prophylactic drainage ($p = 0.008$) and time under anesthesia ($p = 0.012$) to be associated to AL.

Multivariate analysis showed BMI greater than 30 kg/m² ($p = 0.006$; OR 2.6 CI 1.3 – 5.2) and “after hours” construction of an anastomosis ($p = 0.030$; OR 2.2 CI 1.1 – 4.5) to be independent risk factors.

BMI greater than 30 kg/m² and “after hours” construction of an anastomosis were independent risk factors for colorectal anastomotic leakage.

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FP22. — **MORTALITY RISK ANALYSIS AFTER ROUTINE VERSUS SELECTIVE DEFUNCTIONING STOMA AT TOTAL MESORECTAL EXCISION FOR RECTAL CANCER.**


*U.Z. Gasthuisberg, Leuven, Belgium.*

To answer the question whether a defunctioning stoma (DS) should be constructed routinely after total mesorectal rectum excision or whether it could be used selectively to ensure patient safety.

A PubMed search was performed. All randomised trials on the role of a DS were included. Observational articles published between January 1997 and August 2007 were equally reviewed. Sensitivity analysis of the mortality risk was performed.

The clinical anastomotic leak (CAL) rate was 17% in 358 patients from 4 randomised trials and 9.6% in 4059 patients from 39 observational studies. The CAL rate increased significantly from 9.6% with DS to 24.4% without DS in 4 randomised trials, and from 7.9% with DS to 13.2% without DS in 17 observational studies. The reoperation rate due to anastomotic leakage was lower in patients with DS than in patients without DS in both study types. Leak-related mortality was not significantly different: 7.2% with versus 7.7% without DS in observational studies, and 0% with versus 4.6% without DS in randomised trials. Sensitivity analysis indicated that a selective DS strategy is acceptable if the CAL rate without DS is less than 16.6% with a CAL-related mortality of no more than 4.5%.

The results of this review support routine construction of a protective stoma. However, selective use of a DS is justified from a patient’s safety point of view if the CAL-rate and its related mortality are limited. Each unit should audit its performance.
FP23. — A RANDOMISED CONTROLLED PROSPECTIVE TRIAL COMPARING FLEET PHOSPHO-SODA® WITH MOVIPREP® IN PATIENT UNDERGOING COLORECTAL SURGERY.
U.Z., Gent, Belgium.

Sodium phosphate solutions are well known and reliable products for bowel preparation in colorectal surgery. However, in patients with a history of heart failure or impaired renal function they are less suitable because of induced hyperphosphataemia, hypocalcaemia and hypokaliëm ia. Irreversible renal impairment has been documented. Classical Peg solutions preparations on the other hand are compromised in tolerance because of the high amount of fluid intake. The aim of this study was to compare effectiveness and patient tolerance of Moviprep® versus fleet Phospho-Soda®.

A single center single blind prospective randomized trial was performed on 40 consecutive patients scheduled for elective colorectal surgery between February and December 2008. We compared nausea, vomiting, abdominal pain, abdominal distension, asthenia, dyspnoe, palpitations, taste, fluid ingestion and ability to perform a full bowel cleansing between both study groups. Following parameters were evaluated by the surgeons to test the effectiveness of bowel preparation: adequacy of bowel preparation, contamination of the operation site, signs of patient dehydration, anal bleeding, ileus related signs, postoperative infectious complications. Analyses from these data showed a significant better taste when using moviprep® vs fleet Phospho Soda® (44.9 ± 24.4 vs 72.2 ± 26 P < 0.001), the amount of oral fluid ingestion is significantly less demanding with fleet Phospho Soda® (6.62 ± 9.6 vs 52 ± 33.7 P = 0.004). Furthermore, the rate of bowel contamination is less with moviprep® (1 ± 3.2 vs 9 ± 18.9 P = 0.035). The remaining investigated data showed no statistical significance. Moviprep® is a valuable option in preparing patients for colorectal surgery, less contamination in the operation field was observed, it has better taste, but needs more fluid ingestion.

FP24. — MORBIDITY DUE TO CLOSURE OF A TEMPORARY DIVERSION ILEOSTOMY: RESULTS FROM A LARGE CONSECUTIVE SERIES.

A low pelvic anastomosis is associated with an important risk of anastomotic leakage. Although a defunctioning stoma has been shown to reduce clinical anastomotic leak rate and the need for urgent abdominal re-operation, its role remains controversial. The aim of the study was to assess morbidity and mortality associated with ileostomy closure. This should be taken into consideration to complete the outcome analysis of a low pelvic anastomosis. The prospectively collected surgical database was queried and medical records reviewed for all patients who had closure of a loop ileostomy between August 2003 and August 2008. Patient demographics, operative details, postoperative morbidity and mortality were noted.

Two hundred and seventeen ileostomies were closed over a 5-year period. There was no 30-day mortality. Overall mortality was 0.9% and overall complication rate 35.9%. Seventeen Patients (7.8%) required reoperation. Sixty-eight patients (31.3%) suffered surgical complications which included anastomotic leaks 7 (3.2%), small bowel obstructions in 8 (3.7%) and wound infections in 11 (5.1%) patients. Male gender was the only significant risk factor (P = 0.006) for complications. Prolonged ileus (12%), the most frequent surgical complication, significantly increased when the interval between construction and closure of the ileostomy exceeded 12 weeks (P = 0.04). Suture closure was performed in 158 patients (72.8%), side-to-side stapled closure in 28 patients (12.9%) and segmental enterectomy in 31 patients (14.3%). No significant difference with respect to any of the complications was found between the three closure techniques.

Loop ileostomy closure is associated with acceptable mortality but considerable morbidity.
FP25. — EASY ACCESS OF PEROPERATIVE COLONOSCOPY DURING LAPAROSCOPIC COLECTOMY FOR MALIGNANCIES IS MANDATORY.

D. Arnold, T. Lafullarde, T. Gys.
A.Z. St. Dimpna Hospital, Geel, Belgium.

Recent studies prove the oncologic safety of laparoscopic colectomy. It should be preferred in patients suitable for this approach regarding the short-term benefits. Yet, identifying a small tumour during laparoscopy can be a problem because of the lack of tactile sense. Moreover, preoperative endoscopic localisation seems often incorrect. The aim of the study is to evaluate the need for colonoscopy during laparoscopic colectomy to localise the tumour precisely.

From March 2006 to December 2008, 65 colorectal tumours (17 right-sided, 28 left-sided and 20 rectosigmoid) were treated in our institution by laparoscopic colectomy. All patients underwent a preoperative colonoscopy and CT scan. The data were analysed to distinguish the need for peroperative colonoscopy.

In 10 patients (15.4%), peroperative colonoscopy was necessary for precise localisation of the tumour. The mean maximal diameter of the tumours in this patient group was 2.5 cm compared to 4.2 cm in the group in which peroperative colonoscopy was not mandatory (p < 0.05).

Peroperative colonoscopy during laparoscopic colectomy can be very helpful in order to localise smaller tumours and an easy access to preoperative colonoscopy is mandatory.

FP26. — CALCIUM SCORE : A NEW RISK FACTOR FOR COLORECTAL ANASTOMOTIC LEAKAGE.

A.Z. Middelheim, Antwerpen, Belgium.

Anastomotic leakage (AL) is the most feared complication of colorectal surgery. Despite the vast body of evidence regarding risk factors leakage rates are still very high, suggesting that not all risk factors are known. Atherosclerosis is a known cause of tissue ischemia and is suggested to have a detrimental effect on anastomotic healing. The aim of this study is to analyse the calcium score, a measure for atherosclerosis, as a risk factor for AL.

The calcium scores in colorectal patients operated upon in the Erasmus MC between 2002 and 2006 and at the UMCG between 2005 and 2007, were determined on CT scan using Siemens Calcium Scoring software. The score was determined in the aorta starting from the T12-L1 level, left and right common iliac artery, left and right internal iliac artery and the left and right external iliac artery. Additionally risk factors for AL and atherosclerosis were scored.

A total of 122 patients were included. In patients with AL calcium scores were significantly higher in the left common iliac artery (561.4 vs. 156.0 p = 0.028), right common iliac artery (542.0 vs. 144.4 p = 0.041), both common iliac arteries together (1103.3 vs. 301.9 p = 0.046) and the left internal iliac artery (716.3 vs. 35.3 p = 0.044). No additional risk factors were found.

The calcium score is a risk factor for anastomotic leakage. Higher scores are associated with a higher risk of AL.
FP27. — ANALYSIS OF FACTORS PREDICTING THE QUALITY OF TOTAL MESORECTAL EXCISION FOR RECTAL CANCER.

D. Leonard, S. Fieuws*, F. Penninckx*.

Poor quality of mesorectal excision (TME) for rectal cancer is related to increased local and overall recurrences. Factors predicting poor TME quality could influence decision-making. This study aims to determine preoperative tumor-, patient- and surgery-linked factors independently related to and possibly predicting poor TME quality.

In the context of PROCARE, a Belgian project on cancer of the rectum, the quality of 266 consecutive and anonymised TME specimens submitted by 33 candidate-TME-trainers was graded by a blinded pathology review board in a standardized fashion. The relationship between 16 preoperative factors and poor TME quality was evaluated by means of uni- and multivariable analysis.

A significant variation of TME quality was observed between surgeons ($p = 0.01$). On univariable analysis, other factors found to be significantly related to poor TME quality were: female gender ($OR = 2.33 (1.28 ;4.35) ; p = 0.004$), pathological BMI ($p = 0.0026$), surgical approach i.e. laparoscopic and converted cases ($OR = 2.33 (1.10 ;5.0) ; p = 0.027$), abdominoperineal resection (APR) compared to sphincter saving ($OR = 3.65 (1.72 ;7.77) ; p = 0.0014$), low rectal cancer ($OR = 1.12 (1.02 ;1.25) ; p = 0.009$) and the absence of downstaging after long course radio-chemotherapy ($OR = 6.25 (1.61 ;25.0) ; p = 0.009$). On multivariable analysis, surgeon ($p = 0.04$), female gender ($p = 0.029$), laparoscopic approach together with converted cases ($p = 0.038$) and APR ($p = 0.028$) were identified as factors independently predicting poor TME quality.

TME quality can be predicted on the basis of clinical and surgical factors. Presence of female gender and the necessity for APR should influence the indication for neo-adjuvant treatment and referral of patients to expert peers. Laparoscopic approach cannot be recommended in general practice yet.

FP28. — COMPLETE PATHOLOGICAL RESPONSE AFTER NEOADJUVANT CHEMORADIOThERAPY FOR STAGE II AND III RECTAL ADENOCARCINOMA PREDICTS EXCELLENT LONG-TERM OUTCOME.


Neoadjuvant chemoradiotherapy is a standard of care in patients with stage II-III rectal cancer to improve local control after TME-surgery. The impact on ultimate pathological staging is variable and the aim of this study is to evaluate long-term disease control in patients who had a complete pathological response.

All consecutive patients surgically treated for mid and distal rectal adenocarcinoma, after neoadjuvant treatment, were identified from a prospectively collected database. Patient demographics included age, sex and BMI. Clinical stage II and III rectal cancer received neoadjuvant chemoradiotherapy according to a standardised protocol. Radical surgery was performed after an interval from 6 to 8 weeks. Only patients with ypT0 and ypT1 were eligible for inclusion. Survival analyses were performed using the Kaplan-Meier method.

Between January 2000 and December 2007, a total number of 303 patients underwent a TME after neoadjuvant therapy. Sixty patients (20%) were ypT0N0. Eighteen (6%) patients were down-staged to ypT1N0, 4 patients (1%) to ypT0N1 and 2 patients to pT1N1. Mean age was 63 years (range : 34-85) and 59% were males. Mean BMI was 25 kg/m2 (range : 17.5-38.5). At a median follow-up of 54.7 months (range : 11.4-104.6 months) a 5-year survival rate of 98.3% and a disease free survival of 92.8% was noted. Recurrence occurred in 5 patients (5.9%). One patient died from a local recurrence after 29.6 months. Another patient died from pulmonary and adrenal metastases after 89.2 months. Despite initial tumour stage, those patients who have a complete pathological response have an excellent chance of longevity.
FP29. — EVALUATION OF THE TREATMENT OF PERITONEAL CARCINOMATOSIS (PC) OF COLORECTAL CANCER (CRC) WITH COMPLETE CYTOREDUCTION AND HYPERHEMATIC INTRANPERITONEAL PEROPERATIVE CHEMOTHERAPY


A prospective multi-centre registry on CCRS with HIPEC was started to evaluate early and late efficacy and morbidity/mortality related to this treatment.

The registry included 48 patients (M/F ratio 17/31) with PC from CRC, who underwent CCRS and HIPEC with Oxaliplatin (460 mg/m2). In 72.9% of patients the primary tumour had been previously resected. Median PCI (peritoneal cancer index) was 11 [1-22], with a median of 6 [2-6] abdominal regions involved and a median lesion size score of 3 [1-3]. To obtain CCRS a median of 2 [2-6] organs needed to be resected, with anterior resection in 45.8%, total colectomy in 8.3% and small bowel resection in 12.5% of cases. A median of 1 [0-6] anastomosis was performed per patient and 16 patients had a temporary diversion.

Median operation time was 460 min [125-840] with a median blood loss of 475 ml [2-6000 ml]. There was no postoperative mortality. Complication rate was 52.1%, with 18 intra- and 17 extra-abdominal complications. Anastomotic leakage occurred in 10.4%, bleeding in 6.3% and prolonged ileus in 22.9%. Median hospital stay was 20[5-65] days. Occurrence of intra-abdominal complications significantly affected hospital stay (p = 0.0012). Median follow-up is 22.7 [3.2-55.7] months, with 91.7% 2-year overall survival. Progression-free survival at 2 years is 64.6%, with PC recurrence in 29.2% of patients and other metastatic disease in 25%. Multivariate analysis only retained the CEA-level as a significant prognostic factor (p = 0.0065).

CCRS followed by HIPEC for PC of colorectal origin is safe and has longer than expected PFS and OS.

FP30. — LONG-TERM OUTCOME AFTER LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING.


U.Z., Gent, Belgium.

The aim of this study was to investigate the long-term outcome of the LAGB.

A retrospective study of patients who underwent LAGB at least 4 years earlier is presented. Primary outcome was the presence of the banding device at the time of analysis, while secondary outcomes were final excess weight loss, maximal weight loss and conversions to other procedures.

From a total of 640 patients, 2 (0.31%) patients died, 7 (1%) refused to cooperate, 32 (5%) were lost from follow-up, and 367 (57%) failed to respond during the first telephone call. The mean age of the 232 (36%) responders was 36 years and 78% were women. The median follow-up after surgery was 92 months (range 48-152 months) and the mean initial BMI was 41.03 ± 6.06 kg/m2. BMI dropped to 30.12 ± 4.86 kg/m2 after a mean of 41 ± 30 months, but rose to 33.47 ± 6.03 kg/m2 at the time of analysis, which corresponds to a 39 ± 28% excess weight loss. Removal of the band was carried out in 54 (23%) patients after a median interval of 64 months (range 12-104). In 17 (7%) patients the band was simply removed, but a conversion to R-Y gastric bypass was performed in 29 (12.5%) patients, to duodenal switch in 6 (2.5%) and to sleeve gastrectomy in 2 (1%) patients.

The data showed that after 4 to 12 years, more than 3 out of 4 devices are still functioning, having achieved a weight loss of 39% of excess body weight.
FP31. — ENDOSCOPIC THORACIC SYMPATHECTOMY FOR POSTTRAUMATIC COMPLEX REGIONAL PAIN SYNDROME.

Complex Regional Pain Syndrome (CRPS) sustained after trauma has a great negative impact on rehabilitation and activities of daily living. Treatment is most often unrewarding. The aim was to analyze prospectively the efficacy of endoscopic thoracic sympathectomy (ETS) in reducing pain and disability associated with post-traumatic CRPS.

Over a 5-year period, 15 patients (7 females and 8 males; mean age 48.9 years) underwent unilateral ETS. The median duration of CRPS symptoms before ETS was 4.1 months (range: 1.2 to 19.4). The sympathetic chain was resected from the 2nd to 5th rib. After 3.4 months (range: 1 to 40.9), pain was assessed at rest (passive) and during movement (active), using a visual analogue scale (VAS) from 0 to 10.

One patient (6.7%) had a hydrothorax and 3 patients (20%) complained about contralateral compensatory hyperhidrosis. At 1 month (n = 12), 2 months (n = 8), six months (n = 11) and 1 year (n = 10) after ETS, there was a significant decrease in passive and active VAS (P < 0.05). Ten out of 14 patients (71.4%) needed less analgesics after surgery, and seven (50%) didn’t need analgesics at all. The mean sleeping duration improved significantly from 2.7 hours preoperatively to 6.0 ± 1.6 hours postoperatively (P < 0.05). Overall, patient satisfaction was 85% (11 out of 13 patients).

ETS is efficient in reducing pain and improving quality of life, and therefore should be considered in the treatment of CRPS.

FP32. — LOBECTOMY WITH SLEEVE RESECTION OF THE PULMONARY ARTERY.

When a central lung tumour extends into the pulmonary artery (PA), lobectomy with sleeve resection of the PA is a good alternative to pneumonectomy, although it is technically more demanding. It is a procedure in which the involved lobe is removed, along with a circular resection of the PA with end-to-end anastomosis. Sometimes a combined sleeve resection of the bronchus has to be performed. The aim of this study is to describe the surgical technique and to analyze post-operative results, recurrence and survival rates.

Between January 2000 and October 2008, 21 lobectomies with sleeve resection of the PA were performed at the University Hospital of Leuven. Arterial sleeve lobectomy was the procedure of choice, whenever technically possible. There were 17 men and 4 women, with a mean age of 63.8 years (37-76 years). In 17 cases, we performed a left upper lobe resection. Eight patients had a combined arterial and bronchial sleeve resection.

In 12 patients, complications occurred. The postoperative mortality (within 30 days) was 4.76%. The mean duration of hospitalisation was 11.2 days (range 7-27). The mean follow-up was 34.6 months. The five-year survival rate was 56.1%. The five-year local recurrence free survival is 68.9%.

The conclusion is that arterial sleeve lobectomy can be safely performed with an acceptable mortality and morbidity. Long-term results are comparable to those of pneumonectomy. Since it is a lung parenchyma-sparing operation, exercise, tolerance and quality of life are often better than after pneumonectomy. For tumours with invasion of the PA, we believe this is the procedure of choice whenever technically possible.
FP33. — SUCCESSFUL START OF TRANSAPIC AORTIC VALVE IMPLANTATION PROGRAM.
Academic Hospital, Maastricht, Netherlands.

Transapical aortic valve implantation is a challenging new technique. A thorough training and proctoring support may reduce the risks during the learning curve. We report our first 18 procedures with some safety advices to start up the program.

Following an extensive training program and with support of a proctor in the first 3 cases, 18 patients, mean age 82 ± 6 years old, with symptomatic severe aortic valve stenosis were operated from May 2008 till February 2009. Seven patients had previous heart surgery. Mean Euroscore was 33, mean STS score 30. All patients received the SAPIEN pericardial xenograft fixed within a stainless steel balloon expandable stent (Edwards Lifesciences, Irvine, CA).

In all procedures, the valve was placed successfully, 15 of them were off-pump. There were no peri-operative deaths. During follow-up, mean 125 days (range 27-299), 4 patients died: two because of heart failure (both D30), one respiratory infection (D59) and one post-traumatic, non-cardiac related (D168). 17 patients were extubated within 15 minutes after skin closure. One patient had temporary neurological dysfunction needing a tracheostomy. Mean procedural time was 77 minutes (range 150-60). Residual aortic regurgitation was trivial in all patients. There were two postoperative pacemaker implantations.

The transapical aortic valve implantation in high-risk patients can be performed with good operative results, even during the learning curve. Key for success is a thorough collaboration between cardiothoracic surgeons, cardiologists and cardio-anaesthesiologists, and choosing the right strategy for various risk factors in each individual procedure.

FP34. — COMBINED MODALITY TREATMENT FOR MALIGNANT PLEURAL MESOTHELIOMA (MPM).

Since single modality treatment has failed in treating MPM, we started a feasibility study of combined modality treatment (CMT) for MPM patients (neoadjuvant chemotherapy, surgery and postoperative radiotherapy).

All consecutive MPM patients, selected for CMT between March 2003 and August 2008 were prospectively included. Treatment consisted of induction chemotherapy (IC) with cisplatin-pemetrexed, extrapleural pneumonectomy (EPP), and radiotherapy (mostly by intensity-modulated radiotherapy). Inclusion criteria were: age < 65 years, WHO Performance Status = 1, medically fit for pneumonectomy, staging of cT2N2M0 or less (epithelial subtypes) and cT2N1M0 or less (other histologic subtypes).

A total of 50 MPM patients were selected for CMT. Six patients were either progressive after IC or estimated irresectable. Thirty-two patients underwent EPP, while 10 patients were irresectable at thoracotomy and 2 patients refused surgery. Postoperative mortality was 7.1% (n = 3/42). One patient was estimated ineligible for irradiation (unique kidney) and another developed bone metastases. One patient didn’t complete radiotherapy and another died after ending radiotherapy (BOOP). At the end, 26/50 patients completed CMT. Median survival (after MPM diagnosis) for all 50 patients who started CMT and for the 26 patients who completed CMT was 14 months and 23 months, respectively. This study demonstrated that CMT with neoadjuvant chemotherapy, EPP and postoperative radiotherapy is feasible in our centre but for selected MPM patients only. The median survival for those patients who completed CMT is promising, but validation of these results in future randomized controlled trials will be of interest.
FP35. — CONCOMITANT CARDIAC SURGERY AND PULMONARY RESECTION.
U.Z., Gent, Belgium.

Management of concomitant indications for pulmonary resection and cardiac surgery remains controversial. There is no consensus on the use of a one- or two-staged procedure, the timing of heparinisation and the utilisation of cardio-pulmonary bypass. We focused on early postoperative morbidity and mortality.
A retrospective review of a consecutive series of 27 patients was performed. The patients underwent concomitant surgery for a pulmonary lesion and cardiac disease from 2000 to 2008.
Twenty-four men and 3 women with a mean age of 68 years were treated. Cardiac procedures consisted of coronary artery bypass grafting (n = 22), heart valve surgery (n = 3) or a combination (n = 2). Pulmonary resection included segmental resection (n = 1), lobectomy (n = 21), bilobectomy (n = 2) and pneumectomy (n = 3). The patients with a malignancy were stage IA in 8 (30%), stage IB in 11 (41%), stage IIB in 5 (19%) and stage IIIB in 1 (3%). Two patients had no malignancy. There was no in-hospital mortality. Postoperative complications occurred in 16 patients (59%) consisting of atelectasis in 4 (14%), pneumothorax in 1 (3%), pneumonia in 7 (33%), pleural effusion in 1 (3%), supraventricular arrhythmias in 10 (37%), ventricular arrhythmias in 2 (7%) and renal insufficiency in 1 patient (3%). Revision for bleeding was necessary in 3 patients (11%). The mean follow-up was 30.7 months with a mean survival for all patients of 28.3 months.
Simultaneous procedures for cardiac disease and pulmonary lesions were performed without life-threatening morbidity and no in-hospital mortality.

FP36. — THYROIDECTOMY USING THE HARMONIC FOCUS SHEARS: RESULTS FROM A PROSPECTIVE RANDOMIZED TRIAL.
Cliniques Universitaires St. Luc, Louvain-en-Woluwé, Belgium.

Evaluation of the advantages and limits of using the Harmonic Focus Shears (HFS) in open total thyroidectomy in comparison to conventional haemostatic procedures.
Sixty-eight consecutive patients, candidates to total thyroidectomy, were prospectively randomized to undergo surgery using either HSF (group 1, 34 patients) or conventional haemostatic clamp-and-tie procedure (group 2, 34 patients). Total number of patients was determined by intermediate analysis. They were all operated by the same surgeon.
There were no significant differences between the two groups in terms of age, sex, disease and thyroid weight. In group 1, the surgical time was shorter (57 ± 13min vs 80 ± 12min), there was less bleeding (28 ± 30g vs 52 ± 29g) and instrument exchanges (68 ± 25 exchanges vs 221 ± 56 exchanges). The need for specific material to achieve haemostasis (knots, stitches, haemoclips and haemostatic sponge) was less important in group 1 in comparison to group 2. No significant difference was observed between the two groups on day 1 regarding the volume of drainage and calcemia. There was no hematoma, permanent hypocalcemia or permanent recurrent laryngeal nerve palsy in the two groups. HFS in thyroid surgery is safe and useful. HFS reduces the surgical time, the bleeding, the instrument exchanges and the need for specific materials.
FP37. — AGE OVER 75 IS NOT A CONTRA-INDICATION FOR ESOPHAGEAL CANCER SURGERY: COMPARISON BETWEEN TWO MATCHED POPULATIONS.
C. Honoré, A. Al-Azzeh, M. Meurisse, A. De Roover, P. Honoré. 
CHU Sart Tilman, Liège, Belgium.

Surgery is the standard treatment for stage I and II esophageal cancer, but age over 75, considered as a high surgical risk factor, is often denying surgery. Is this age limit still valid?
We retrospectively analyzed the database of esophageal cancer treated in our department between January 2003 and November 2008 and matched one group of patients older than 75 to a group of patients younger than 75 according to risk factors of postoperative morbidity and mortality.
Among the 111 patient surgically treated, we matched 19 patients older than 75 (Group I) to 19 patients younger than 75 (Group II). The two groups were compared according to denutrition (42.1%), ASA score (ASA3 10.5%, ASA2 84.2%, ASA1 5.3%), smoking (10.5%), alcohol abuse (15.8%) and histological type (adenocarcinoma 100%). The 30-days postoperative mortality was 5.3% in both groups (p NS). The postoperative morbidity (Grade > 2) was not different between the two groups (31.6% in group I vs. 36.7% in group II, p NS). Hospital and intensive care unit stay were comparable in both groups (18,817 + 4,317 in group I vs. 28,138 + 6,455 in group II, p NS ; 2,347 + 0,538 in group I vs. 0,586 + 2,795 in group II, p NS).
Esophageal surgery performed in patients older than 75 is comparable, in terms of morbidity and mortality, to surgery performed in a matched younger population. This study confirmed our attitude not to consider age as a contra-indication to esophageal surgery, and apply the same surgery selection criteria in a younger population.

FP38. — THORACIC ENDOMETRIOSIS SYNDROME, A BELGIAN MULTICENTER EXPERIENCE.

Thoracic endometriosis syndrome (TES) comprises a range of disorders along with the menstrual cycle related to the presence of ectopic endometrial tissue within the chest. The prevalence of TES is underestimated. A multi-centre study was performed to analyse clinical features and to improve future awareness. All women referred for surgery (2003-2008) with “probable” or “proven” TES were collected from 5 centres. Presentation, surgery and outcome were reviewed. Median follow-up is 6 (1-70) months. Thirteen women (age 32 (16-47) years) were identified. Six had proven pelvic endometriosis. Eight presented with recurrent pneumothorax, one with recurrent spontaneous haemothorax. Events were all menses-related. Four more patients presented with catamenial shoulder pain: in these cases, surgical exploration was guided by suspicion of diaphragmatic endometriotic implants on MRI. The affected side was right in 12 patients, bilateral in 1. Five underwent VATS + minithoracotomy, 6 VATS and 2 thoracotomy. Diaphragmatic, pleural, or pulmonary implants were found in 9, 4 and 1 patient, respectively. Diaphragm resection+repair of wholes were performed in 9 cases. Pleural abrasion was accomplished in 9 patients, pleurectomy in 4, and talcage in 1. One patient had prolonged airleak. Hospital stay was 6 (5-27) days. Pathology could confirm endometriosis in 4 cases only. Seven received “adjuvant” hormonal treatment. Four recurred after surgery.
TES is a challenging condition, presenting in various ways and prejudicing the quality of life of women in reproductive age. A high index of suspicion is needed in women with cyclic thoracic symptoms or pelvic endometriosis. Optimal treatment is still missing and recurrence rate high.
SC 1. — MEDICO-SURGICAL MANAGEMENT OF IATROGENIC COLONOSCOPIC PERFORATION IN AN ONCOLOGICAL INSTITUTE: AN 11-YEAR RETROSPECTIVE STUDY.
Institut Jules Bordet, Bruxelles, Belgium.

The incidence of iatrogenic colonoscopic perforation (ICP) is reported in 0.03%-0.19% in recent large series. Despite a low incidence of perforation, the management of patients undergoing such complications is very important. Technical modalities to manage those patients have evolved recent years. The aim of the study is to analyse the medico-surgical approach in patients with ICP in our oncological institution.

Institutional computer-based search of records for ICP was used (Oribase system). The database included clinical features, therapeutic modalities and long term follow-up.

19 patients with ICP were retained out the 16,430 colonoscopy performed between 1997 and 2008. There were 14 M (74%) and 5 W (26%), with a mean age of 66.2 years (median: 67; range: 47-79). 14 patients had a colonoscopy performed with therapeutic intent (74%) and 5 with diagnostic intent (26%). 13/19 (68%) had a previous history of cancer or polypectomy. 9 patients have been treated firstly by conservative treatment (including 4 with endoclips) and 10 were treated by surgery in first intent. 6 out 9 patients treated conservatively were secondarily treated by surgery. In the surgical group (16 patients), a laparoscopic approach was attempted in 6 cases (37.5%) but had to be converted in 2 cases. Other patients were treated by explorative laparotomy (segmental colectomy (7), local colonic suture (5). Global (short and long term) morbidity was 37%. There was no mortality.

The results showed that the incidence of ICP in a cancer institute dealing with a specific population remains in the reported range of ICP in the literature. Although an aggressive attitude is adopted; the overall morbidity is low with no related mortality.

SC 2. — THD, TWO YEARS’ EXPERIENCE.
C. Firket, A. Tabech, J. Rossat, R. Algaba.
H.I.S. Bracops, Bruxelles, Belgium.

A retrospective study of 115 patients operated for degree 2 and 3 haemorrhoids (Goligher classification) with the THD procedure (Trans Anal Haemorrhoid Dearterialisation) is submitted. The surgical results are analysed in terms of patient satisfaction and ability to perform the procedure in one-day care.

The THD device is equipped with a Doppler transducer to locate the terminal branches (6) of the superior rectal artery. Once identified, they are ligated above the dentate line, and making them shrink by reducing the arterial flow to the haemorrhoids. Degree 2 haemorrhoids are ligatrated and pexies are performed for degree 3 haemorrhoids.

Over a 25-month period, 115 consecutive patients (71 males, 44 females) were treated. The median age was 49. 57 degree 2 and 58 degree 3 were treated. The hospitalisation/day care ratio was 27/88. Overall, patients were satisfied, among the 7 patients who were not fully satisfied; however, a reduction of complaints and of degree of haemorrhoidal status was noticed. One hundred and six patients had mild postoperative pain for which paracetamol analgesia was sufficient, 9 failures needed more than paracetamol (tramadol). In the series, for middle term postoperative results, there were 90% of good results in terms of patient satisfaction.

The THD procedure is a simple and effective technique, which can be performed in one-day care. In the series, there are 90% of good results in terms of patient satisfaction. But long term follow-up is needed for definitive results.
SC3. — TEMPORARY DEFUCTIONING STOMA IN THE SURGICAL TREATMENT OF LOW RECTAL CANCER WITH CONCOMITANT NEO-ADJUVANT THERAPY: NOT A HAZARDOUS DECISION.

C. Peeters, T. Lafullarde, T. Gys.
A.Z. St. Dimpna, Geel, Belgium.

Evaluate morbidity of protective derivative stoma in surgical treatment of low rectal cancer with concomitant neo-adjuvant therapy.

Twenty-two consecutive patients with low rectal carcinoma (stage ≥ II) treated by low anterior TME resection with concomitant neoadjuvant radiochemotherapy (25 Gy vs 55 Gy) and an elective temporary diverting stoma were studied with minimal follow-up of 8 months. Following recommendations, a temporary defunctioning stoma (16/22 loop ileostomy, 6/22 transverse colostomy) was constructed. A retrospective study of morbidity is presented.

Stoma closure was performed in 19/22 patients after an average of 125 days (loop ileostomy) and 147 days (transverse colostomy) (25-336). Two developed a parastomal hernia and one a small bowel obstruction, managed during an earlier stoma closure. After closure, 2 developed a delayed sutureline dehiscence with local peritonitis, managed by resection with a new anastomosis, in one a temporary loop ileostomy was constructed, posterior closed. One patient developed an incisional hernia, without any reoperation. No mortality reported.

Of 22 consecutive patients treated for low rectal cancer with temporary diverting stoma, 6/22 developed major complications (27%). During stoma closure, 5/22 needed an additional surgical act (23%). In 2/22 (9%) an additional surgical procedure was necessary and in 1/22 (5%) two. Should these results change future attitudes towards the decision of constructing an elective diverting stoma?

SC4. — CIRCULAR ‘SUPERELASTIC’ COMPRESSION ANASTOMOSIS: THE BELGIAN EXPERIENCE.

A.Z. Groeninge, Kortrijk, Belgium.

The concept of letting the body create an anastomosis without the use of staplers or sutures is difficult for the surgeon to accept. Since 1892, attempts have been done to create a safe ‘compression anastomosis’. The recent development of a compression device using shape memory Nitinol technology to create an end to end anastomosis has renewed the interest in suturless anastomatic technique.

A phase II, prospective open label clinical trial of this new anastomosis, was started in June 2007. The purpose was to evaluate the feasibility and safety of this new device (NiTi Car 27). Clinical leakage was the primary endpoint. Patients who needed a sigmoid or high anterior resection were recruited in 6 Belgian hospitals.

Up till now, nearly 100 patients have been recruited, results of the trial will be presented. The first clinical use of this new device seems promising, further study is warranted.
SC5. — ERAS, COLLABORATING IN PERIOPERATIVE CARE.
A.Z. Middelheim, Antwerp, Belgium.

ERAS (Enhanced Recovery After Surgery) is a protocol optimizing perioperative care, including minimal surgical trauma, optimal pain management and early mobilisation and postoperative feeding. An ERAS protocol was developed and the first experiences with this protocol were reported.

All patients who underwent colorectal surgery in the hospital between August and December 2008 were included in the ERAS programme. Investigated parameters were sex, age, hospitalisation period, type of surgery, presence of penrose drainage, ASA scores and malignancy. We compared the length of hospital stay with patients who underwent colorectal surgery in 2007.

Forty-five patients were included in the ERAS programme. The mean age was 67 years (range 18-87 y). Male:female ratio was 1.5:1. Twelve patients (26.6%) were treated by laparoscopic surgery with two conversions to laparotomy. Median hospital stay was 9 days for patients in the ERAS programme. In 2007, median hospital stay was 14 days. Twenty-two patients were discharged within 8 days after surgery. Patients with a longer hospital stay were significantly older (mean age of 74 years versus 61 years, p = 0.038). Infection and social factors often caused lengthening of hospital stay.

With the ERAS protocol, it is possible to optimize perioperative care and to shorten hospital stay for many patients. Better organized home-care systems and social networks may further shorten hospitalisation period.

SC6. — MODIFIED MARGIN-CONTROLLED SURGERY FOR THE TREATMENT OF NON-MELANOMA SKIN TUMOURS.
J. Van Dyck, T. Gys, C. Molderesz.
A.Z. St. Dimpna, Geel, Belgium.

Surgical treatment for non-melanoma skin cancer is performed by standard surgical excision or by Mohs micrographic surgery. In our centre, a modified type of margin-controlled surgery is used and where frozen section of the critical edge determines whether resection is radical or not. In the latter case, other frozen sections are performed until radical resection is obtained. Our objective is to evaluate the modified margin-controlled surgery technique for non-melanoma skin tumours.

All patients who underwent surgery for a suspected non-melanoma skin tumour from June 2004 to June 2008, were retrospectively reviewed. Of the 199 treated patients, 84 were treated by modified margin-controlled surgery. Six patients (3%) presented with a local recurrence. Fifty percent of those cases underwent modified margin-controlled surgery. Three out of six recurrent cases had infiltrated edges, but deeper resection was not feasible. Half of the recurrent cases were basocellular carcinomas (3/177 or 1.5%), half of them were squamous cell carcinomas (3/32 or 9%).

Recurrence rates of these tumours after the presented surgical treatment is low. The presented procedure is a safe alternative in the surgical treatment of basocellular carcinomas in cases where Mohs surgery is indicated, although expertise to evaluate whether frozen sections should be performed or not is indispensable.
SC7. — LOGISTICS AND TECHNICAL EXPERTISE FOR SELECTIVE EMBOLISATION DO NOT IMPROVE OUTCOME DURING CONSERVATIVE TREATMENT FOR BLUNT SPLENIC INJURY.

U.Z., Gent, Belgium.

Nowadays, non-operative management of splenic injuries (NOMSI) has become the standard of care in hemodynamically stable patients. Angiographic selective embolisation is one of the tools available to treat these injuries without the need for splenectomy. However, as not all general hospitals have not logistics or technical expertise available, this change in management is still under debate. We investigated whether this therapeutic shift was effective and whether selective embolisation really adds significantly to the outcome of splenic injury patients.

A retrospective analysis of all patients with blunt splenic injury admitted from 2001 till 2008 was performed. Type of treatment, failure of initial treatment, ICU stay and survival were evaluated. If a contrast blush was present on CT scan, angiographic evaluation and – if necessary – embolisation was indicated. In hemodynamic unstable patients, an emergency surgical splenectomy was performed.

In total, 95 patients were admitted following a blunt splenic trauma, with a mean age of 30 years. In 29 patients (31%), surgical splenectomy was performed as initial therapy (26) or after failure of initial therapy (3). The number of surgical splenectomies dropped from 50% in 2001 to less than 15% in 2008. Fifty-five patients (58%) were successfully treated with hemodynamic monitoring and observation alone. In 3 cases, observation failed and splenectomy was performed. Six patients were managed by selective embolisation. Three patients (50%) needed further surgical intervention.

The non-operative treatment of blunt splenic injuries has proven to be a success in our institution. In our experience, despite easy access to interventional radiology at our hospital, it did not significantly contribute to the outcome of conservatively treated patients.

SC8. — PATIENTS SUFFERING FROM CHRONIC PANCREATITIS WITH AN INFLAMMATORY MASS IN THE PANCREATIC HEAD BENEFIT SIGNIFICANTLY FROM A FREY PROCEDURE AT LONG TERM FOLLOW-UP

U.Z., Gent, Belgium.

Patients with chronic pancreatitis suffering severe pain pose a therapeutic question. Chronic pancreatitis with an inflammatory mass in the head of the pancreas has been considered the classic indication for a resective procedure. A possible combination of drainage of the pancreatic duct and resection of the inflammatory mass has been proposed by Frey. The aim of this study was to assess the effectiveness of the Frey procedure in relieving intractable pain including both short- and long term quality of life.

In total, 48 patients were operated for chronic pancreatitis, of which 15 consecutive patients presenting with an inflammatory mass in the pancreatic head were included in this analysis. Perioperative morbidity and mortality were prospectively recorded. Both endocrine and exocrine function were assessed at 6 months, 1 year and yearly thereafter and specific pain questionnaires were performed at the time of the retrospective analysis.

There was no mortality; short-term morbidity consisted mainly of wound infection and urinary tract infections without major pancreas related morbidity. During follow-up, 73.3% of the patients remained pain free at time of analysis, while 20.0% (n = 3) needed a second operation to resolve stenosis from the choledocho-jejunal anastomosis. Recurrent episodes of pancreatitis occurred in 2 patients.

The Frey procedure is an effective and safe operation technique to treat uncontrollable pain due to chronic pancreatitis with the presence of an inflammatory mass in the pancreatic head. In these patients, surgery seems the primary choice for treatment compared to repetitive stent placement.
SC9. — ASSESSING IMPACT OF QUALITY OF LIFE (QoL) ON POSTOPERATIVE LENGTH OF STAY (LOS) AFTER ESOPHAGECTOMY FOR CANCER OF THE ESOPHAGUS AND GASTROESOPHAGEAL JUNCTION (GEJ).

To evaluate quality of life factors that influence short term outcomes after esophagectomy for cancer of the esophagus and GEJ.

One hundred and fifty patients, operated between January 2005 and May 2006, who underwent esophagectomy with curative intent were analysed. QoL-scores were obtained by EORTC QLC30 and OES18 questionnaires at baseline and three monthly post-surgery.

There were 122 males and 28 females, with a mean age of 63.6 years. Adenocarcinoma 75.6%, squamous cell carcinoma 22.6%. R0 resection in 91.3%. Hospital mortality was seen in 0.7%, pTNM distribution was 11.3%, 25.3%, 22.6%, 28.6% and 12% for stage 0, I, II, III and IV respectively. Overall survival at 12 and 36 months was 88.7% and 60.3%. Median postoperative LOS was 10 days. Major morbidity was 16%. Patients perceiving a better QoL, a higher global health status and a higher social functioning score at baseline were significantly (p = 0.019, 0.034 and 0.034 respectively) better candidates for early (≤ 10 days) discharge. Moreover, patients with early discharge indicated significant improved QoL-scores, in particular in functional scales as well as in several symptom scales, especially in the periods 1-3 months postoperatively up to 10-12 months postoperatively.

A better perception of preoperative QoL and global health status by patients themselves might have a beneficial effect on LOS. Our data, furthermore, suggest that early discharge correlates with improved QoL outcomes. In order to improve QoL, surgeons should direct all efforts to decrease post-surgical morbidity and related length of hospital stay.

SC10. — RELIABILITY OF HAND-SEWN GASTRO-JEJUNAL ANASTOMOSIS IN LAPAROSCOPIC GASTRIC BYPASS: RESULTS OF 100 CONSECUTIVE PATIENTS.
K. Kothonidis, B. Navez, M. Mourad, R. Detry.

Gastrojejunal anastomosis (GJA) in laparoscopic gastric bypass (LGBP) can be done by stapled or hand-sewn technique. In the literature, rates of postoperative leakage range from 0 to 4.4% and rates of stenosis from 2 to 16%. The aim of this study was to assess the reliability of a fully manual GJA in a consecutive series of patients.

The GJA was performed laparoscopically by using a full-thickness running absorbable suture. A safety blue methylene test has been performed in every patient. All the patients were operated on by a single surgeon from 2004 to 2008. Medical charts were reviewed retrospectively.

A total of 100 consecutive patients (70 females and 30 males) with mean BMI of 44.8 underwent LGBP, including 72 primary and 28 redo procedures. Early postoperative complications classified according to the Clavien classification were 8 class I, 9 class II, 2 class IIIb, 1 class IV and 1 class V in a total of 14 patients. All 4 postoperative leakages were observed either on the stapled stomach or on the stapled jejuno-jejunal anastomosis, No leakage occurred from the manual GJA. Late postoperative complications were 4 marginal ulcers, 1 anastomotic inflammatory substenosis requiring no treatment, 1 incisional hernia and 1 laparoscopic adhesiolysis. In our series, there were not any cases of stenosis requiring radiologically or endoscopically guided dilatation. The mean follow-up was 418 days.

Hand-sewn anastomosis in LGBP is a safe and reproducible technique that demands however expertise in internal suturing and knot-tying. In the experience, the rate of fistula and stenosis from GJA is very low.
SC11. — IATROGENIC FEMORAL PSEUDOANEURYSMS: PREDICTIVE FACTORS FOR PRIMARY FAILURE OF ULTRASOUND GUIDED THROMBINE INJECTIONS (UGTI).

V. Decoene, K. Von Kemp.
A.Z., Brussel, Belgium.

The aim of this study is to find criteria that predict primary failure after thrombine injection as a treatment for iatrogenic femoral pseudoaneurysms. Sixty pseudoaneurysms were injected with thrombine under ultrasound guidance. Injection was considered successful when complete and immediate thrombosis was achieved. Thrombine reinjections were excluded. Patient specific parameters recorded were: age; gender; BMI; ABI; the presence of diabetes; COPD; renal failure and whether under antiaggregants or anticoagulants. Procedure specific parameters were: volume of injected thrombine; sheathsize; maximal pseudoaneurysm diameter and cause of arterial puncture. ANOVA and Chi-square tests were used for statistical analysis.

Forty-nine out of 60 injections were successful. Of the 11 unsuccessful injections, 6 were recommended for surgery and 5 for reinjection. Variables correlating to failure were pseudoaneurysm diameter (p = 0.032) and injected thrombine volume (p = 0.01). No relationship was found for BMI, sheathsize or cause of puncture. Patients under aspirine had a higher success rate (p = 0.034), those under coumadin a higher rate of failure (p = 0.031). Pseudoaneurysm size and injected thrombine volume are predictive factors for primary failure of UGTI.

SC12. — NON-RANDOMISED CLINICAL TRIAL COMPARING ENDOVENOUS LASER ABLATION OF THE GREAT SAPHENOUS VEIN VERSUS HIGH LIGATION AND STRIPPING IN PATIENTS WITH SUPERFICIAL VEIN INSUFFICIENCY: PAIN, COST AND WORK LOSS.

C.H.U. Sart Tilman, Liège, Belgium.

Endovenous laser ablation (ELA) is a minimally invasive technique for treating superficial vein insufficiency (SVI). This study compared ELA to high ligation and stripping (HLS) in terms of cost, pain and work loss. Between December 2007 and May 2008, 52 patients were treated, 23 by ELA and 29 by HLS. A questionnaire was used to evaluate postoperative pain. Time to normal physical activity is compared. The cost is calculated with addition of laser equipment and standard cost of sick leave.

The patients in the laser group received less analgetics in the immediate postoperative period than patients in stripping group (1.92 g (paracetamol) in 1 and 2.46 g in 2). In the first ten days, more patients in group 1 received analgetics (95.2%) than patients in group 2 (55%). After 10 days, treatment for pain was similar. The groups differed in mean time to return to normal physical activity (16.3 days in 1 and 23.8 in 2) and time of work loss (16.9 days in 1 and 23.4 in 2). ELA is more expensive because of the cost of the laser-fiber. ELA is, in majority, a one-day hospital stay, for HLS it is longer.

There is no difference in terms of pain between the two groups. Cost of surgery is significantly different but the two techniques should be performed in one-day hospital to reduce the costs. Sick leave is reduced after ELA but this must be confirmed in larger clinical studies.
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Abstracts of Video Free Papers
**V1. — LAPAROSCOPIC FENESTRATION OF AN ECHINOCOCCAL CYST OF THE LIVER.**

A. Van Schaik, S. Van Cauwenberge, T. Feryn.

A.Z. St Jan, Brugge, Belgium.

The aim of surgical treatment of echinococcal cysts is elimination of scolices, the removal of all viable parts of the cyst and the obliteration of the remaining cavity. This can be safely achieved by a laparoscopic procedure. We report a case of laparoscopic unroofing of an echinococcal cyst of the liver.

This video shows a patient who had a laparoscopic unroofing of echinococcal cysts of the liver, removing its contagious elements, inspection and cleaning with hypertonic saline of the cyst and leaving an omental slip in the cavity. The male patient, aged 27, with a median lesion diameter of 7.8 cm in the right liver lobe. Indication for surgical intervention was unsuccessful long-term treatment with Albendazole. Operating time was 80 minutes. Hospital stay was 2 days. No complications occurred postoperatively.

Laparoscopic unroofing of an echinococcal cyst is a safe surgical procedure. Laparoscopic fenestration is possible in selected cases: superficial lesions, located in the anterior or the lateral segments of the liver. Computed tomography scan is essential for diagnosis and planning the operation. The advantage of a laparoscopic approach is the ability to inspect the inside of the cyst and connections of the biliary tract, lower incidence of wound infection and short hospital stay.

**V2. — SALVAGE PROCEDURE AFTER FAILED LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING IN THE SUPER-OBESE PATIENT: LAPAROSCOPIC ADJUSTABLE BANDED GASTRIC BYPASS.**

S. Van Cauwenberge, S. Lambert, B. Dillemans.

A.Z. St Jan, Brugge, Belgium.

Failed laparoscopic gastric banding (LAGB) is a common finding in the super-obese patient. Conversion to a laparoscopic Roux-en-Y gastric bypass (LRYGB) is a valid option, but the percentage of excess weight loss (%EWL) may be insufficient in the super-obese patient. Adding an adjustable band around the gastric pouch will allow more restriction when needed.

In this video, we demonstrate the conversion of a LAGB to a laparoscopic Roux-en-Y gastric bypass in which we position the same band around the gastric pouch.

To date, we performed 9 of these procedures without major complications and with excellent %EWL.

This video demonstrates that conversion from LAGB to adjustable banded LRYGB is safe and feasible, resulting in satisfactory %EWL. This procedure should be regarded as a valuable salvage procedure, worth to be investigated in the near future.
V3. — HYBRID TRANSVAGINAL CHOLECYSTECTOMY IN HUMANS: MINI-LAPAROSCOPY AND NATURAL ORIFICE EXTRACTION (NOE) TECHNIQUE.

D. Lipski, G. Vasilikostas, G. Daprì, G. B. Cadière.
Hôpital Edith Cavell, Bruxelles, Belgium.

Natural Orifice Transluminal Endoscopic Surgery (NOTES) is an emerging concept in the recent literature that makes possible to perform intraperitoneal surgical procedures with a minimal number of access points in the abdominal wall. The aim is to present a new hybrid NOTES cholecystectomy technique for cholelithiasis, a fusion of mini-laparoscopy and transvaginal specimen extraction.

A 40-year-old female patient underwent a mini-laparoscopic cholecystectomy using three abdominal access points. One 5 mm diameter omnilical trocar was used for the 30° optic (5 mm) and two 2.7 mm working trocars were introduced in the left and right upper quadrants. The postcolpectomy was closed with an intravaginal suturing technique.

There were no intra- or postoperative complications. Open time was 72 min. The patient experienced low needs for postoperative analgesia, and free oral intake was permitted 6 hours after the procedure. The patient was discharged after 24 hours.

Mini-laparoscopic cholecystectomy combined with transvaginal specimen extraction is a hybrid NOTES technique that can be easily performed using common laparoscopic instruments. This technique has more the advantages of other NOTES techniques and avoids the extra costs and time from the use of flexible endoscopy assistance.

V4. — THORACOSCOPIC RESECTION OF A MEDIASTINAL NEUROGENIC TUMOUR, COMBINED WITH PORT-ACCESS MITRAL VALVE REPAIR: A VIDEO PRESENTATION.

B. Defoort, D. Goossens, R. Hamerlijnck, F. Muysoms, D. Claey.s.
A.Z. Maria Middelares, Gent, Belgium.

Minimally invasive surgical techniques are commonly applied as well in cardiac as in thoracic surgery. Thoracoscopic resection of intra-thoracic tumours, and port-access mitral valve surgery have become common practice. In case of combined pathology, performing both procedures during the same operation seems logical.

We present the case of a 61-year-old man, suffering from dyspnea and exercise intolerance, caused by severe mitral valve regurgitation. Preoperative chest X-ray revealed a well-circumscribed mass high in the right costovertebral region. A CT-guided puncture suggested the diagnosis of a schwannoma.

In this video, the thoracoscopic mobilisation of the neurogenic tumor with the patient in left lateral decubitus is demonstrated. Subsequently, after repositioning of the patient to a left semi-lateral position, the removal of the tumour through the working-port prepared for port-access mitral valve repair and, finally, the mitral valve repair with resection of the P2-segment of the posterior leaflet, annuloplication and annuloplasty with a prosthetic ring. The patient’s postoperative course was uneventful. Control echocardiography showed a well-functioning mitral valve without residual regurgitation. The patient was discharged on the 6th postoperative day. Microscopic examination showed a completely resected schwannoma.

Close collaboration between thoracic and cardiac surgeons in the patient’s best interest is evident and nicely demonstrated.
V5. — LESS IS MORE: FUTURE OR STEPSTONE TO NOTES?
U.Z., Gent, Belgium.

LESS (LaparoEndoscopic Single Site Surgery) or SILS (Single Incision Laparoscopic Surgery) are acronyms referring to laparoscopic surgery through one single incision. Together with NOTES (Natural Orifice Transluminal Endoscopic Surgery), they are the next step in minimally invasive surgery. While NOTES offers the possibility of scarless surgery without any extra abdominal incision, these types of procedures are not yet commonly accepted because of the unfamiliarity of most surgeons with flexible endoscopes. At this moment, there is a need for the appropriate tools to offer maximal safety for NOTES procedures. The procedures used in SILS surgery are similar to common laparoscopic interventions and can be considered as a stepstone towards less invasive surgery or even NOTES. We present a video of a delayed appendectomy, performed as a pure SILS procedure, using only a Triport TM access device. Small series of advanced urological and abdominal operations have already been published on this subject, indicating its technical feasibility. The actual benefits of LESS, however, will need to be investigated in clinical studies.

V6. — FIRST LAPAROSCOPIC LIVING DONOR HEPATECTOMY FOR PEDIATRIC LIVER TRANSPLANTATION IN BELGIUM.
U.Z., Gent, Belgium.

The first LLDLS performed in Belgium is described. The video shows all the different steps of the procedure. After evaluation and multidisciplinary discussion, a 31-year-old mother donated her left-lateral-lobe to her 6-month-old daughter affected by biliary atresia.

The liver graft included S2 and S3, two branches of the LHA, two left biliary ducts, the left portal vein and the left hepatic vein. Cholecystectomy was not performed. Four trocars were used with a 30° scope. CO2 pneumoperitoneum was kept at 10 mm Hg. The left hilum was exposed and its structures were taped. All small branches going to the caudate lobe were cut to increase the length of the portal vein. Parenchymal dissection followed the right side of the falciform ligament. Once reached the hilar plate, the biliary ducts were cut with a right shear and its distal end sutured (PDS 5/0). After completing the transection, the left hepatic vein was taped. After general heparinisation (5000 U), the graft was procured: first the arterial supply was interrupted, then the portal and last the venous drainage, the graft was then extracted through a Pfannestiel incision and flushed on the backtable in preparation for implantation. The suprapubic incision was closed and the pneumoperitoneum reinstalled to check both the quality of hemostasis and bilioptasis on the cut surface. One drain was left in situ.

No complications were recorded and the young mother was dismissed on the POD 7. Both mother and daughter are doing well with a FU of 4 months.
Royal Belgian Society for Surgery

Abstracts of Lectures
1. — ENDOVASCULAR ANEURYSM REPAIR (EVAR) : PROS & CONS.
F. Ferdin, H. Van Damme.
C.H.U. Sart Tilman, Liège, Belgium.

Minimally invasive endovascular procedures aim to obtain analogous results as open surgical interventions, with less morbidity-mortality rates. Eighteen years after its introduction (1991, Juan Parodi and Volodos), EVAR remains a matter of debate.

Two main controversies are the cost-effectiveness of EVAR and the uncertainty on its durability in terms of life-long protection against AAA rupture. Randomised trials confirmed a more favourable immediate outcome for EVAR (1.5% 30-day mortality versus 4.7% after open repair, lower morbidity (3% versus 6%) shorter hospital stay (5 days versus 11).

At the long term, the complication and reintervention rates are higher after EVAR (20% reintervention rate at 4 years versus 6% after open repair). However, most of the reinterventions after EVAR can be done by endovascular way. At 4 years follow-up, EVAR is 30% more expensive than open repair. At long term, the perioperative survival advantage of EVAR disappears. There is consensus that EVAR requires life-long surveillance. Continuous improvement of the devices and more rigorous selection of patients could lower the complication rate (less graft migration, less types III and I endoleak, less device failure).

After open repair, graft-related complications are rare (estimated at 9% at 6 years follow-up). For younger AAA patients (aged 65 years or younger), open repair is the best option, foreseeing extended longevity. For AAA patients with poor health status (“unfit for open repair”), EVAR does not improve survival, compared to “non-intervention”, since they generally die from causes unrelated to their AAA.

EVAR depressurises the AAA, but in some cases, the exclusion of the AAA is incomplete (endoleakage). Only 44% of stented AAA will decrease in size, 7% will increase and 49% remain stable in size. Despite these inherent shortcomings, EVAR is effective in preventing AAA rupture (0.5% rupture rate at 5 years). The fact that endoleakage is more prevalent in large AAA excluded by EVAR may not be an argument to stent small aneurysms, even if these are anatomically more suitable for EVAR. EVAR should not alter the threshold for AAA repair.

2. — HOW WE DO IT? VIDEOSCOPIC ADRÉNALECTOMY.
L. Michel, S. Van Slycke.
Cliniques Universitaires de Mont-Godinne, Yvoir, Belgium.

The blitz of videoscopic surgery hit adrenal surgery very soon after its onset in the early 90s. The videoscopic approach, either through the peritoneal cavity or the retroperitoneal space, has completely changed the landscape and the morbidity of this specialised and rare operation. Belgian surgeons have been, once more, at the forefront of the development of such a less invasive approach for adrenalectomy.

The laparoscopic approach has been adopted for right, left and bilateral adrenalectomy. The operation can be conducted with 3 to 5 trocards according to the morphology and weight of the patients, the endocrine indication and the size of the lesion. Volume is no more a contraindication against the laparoscopic approach. Safe removal of large pheochromocytomas (12 cm diameter) will be illustrated.

The overall Belgian experience during the first decade since this approach was introduced has already been published. Therefore, the presentation is focused on the basic and tricky technical aspects of the procedure. Illustration of several pitfalls will be presented (i.e. vascular variant, left diaphragmatic vein, early bleeding control, right adrenal vein entering a supra hepatic vein instead of the posterior aspect of the vena cava, aortic adrenal branch).

Sound collaboration between endocrine and general surgeons with a good background in minimally invasive surgery has rendered videoscopic adrenalectomy a safe, rapid and much more comfortable operation. Multiple Endocrine Neoplasia patients having been operated in the 70s and 80s by the open approach and reoperated laparoscopically later in the 90s for an asynchronous adrenal lesion on the other side have served as their own control demonstrating clearly the many advantages of the new approach.
3. — OPEN REPAIR OF UMBILICAL HERNIA WITH OR WITHOUT MESH.
C. Sommeling.
*O.L.V. van Lourdes Ziekenhuis Waregem, Waregem, Belgium.*

Open repair of an umbilical hernia without a mesh is only used in children and adult patients with small (< 2 cm) hernias. The classical technique consists of a semilunar incision in the inferior skinfold of the umbilicus. The incision is carried to the fascia to expose the caudal aspect of the sac. The sac neck is then encircled by blunt dissection with a hemostat. After freeing the sack, the caudal aspect is incised and the contents of the sack are freed and reduced. The incision then is carried around the cephalad aspect of the sac and the sac is removed. Resorbable or non-resorbable sutures are used to close the fascial defect. A double-layer closure is not necessary. The subcutaneous layer is closed with interrupted stitches. The skin is closed subcutaneously.

An open repair with a mesh is used when the defect is larger than 2 cm. In this technique, the approach can be with the above described technique or a linear incision can be used. A plane is created subfascial or retro muscular by incising the linea alba at both sides of the defect. A space is created with at least 3 cm overlap to all sides (preferentially 5 cm). A polypropylene mesh is cut to the preferred size, inserted and fixed. The linea alba is closed in front of the mesh. In large hernias a drain can be used. The subcutaneous layer is closed with interrupted stitches. The skin is closed subcutaneously.

3a. — THE OPEN INTRAPERITONEAL VENTRALEX™ PATCH TECHNIQUE
F. Berrevoet.
*U.Z., Gent, Belgium.*

The technique used for the Ventralex repair of umbilical or small primary ventral hernias is a simplified intra-abdominal repair technology characterised by minimal suturing, a small incision and potentially fast recovery times. For umbilical hernias the incision is smiley-like and infraumbilically located. The sac is dissected out and opened and possible contents are reduced. A finger is then inserted into the defect to clear the surrounding peritoneum. The Ventralex hernia patch is now inserted into the peritoneal cavity with a size which ensures at least 2.5 cm overlap on all sides. It is composed of a round patch of 4.4 cm (small size), 6.4 cm (medium size) or 8 cm diameter (large size) with a long tail or strap, which should facilitate placement, positioning and suturing of the device in place. The outer side of the patch is a polypropylene mesh, which encourages tissue in-growth into the abdominal muscle, while at the inner side an ePTFE layer should minimise adhesions to the prosthesis. It also features a memory recoil ring that should allow the patch to lie flat in the intra-abdominal space. After introduction in the abdominal cavity, we pull up on the positioning straps to flatten the patch against the abdominal wall. While pulling up on the positioning strap, a finger or peanut sponge is inserted into the defect and in between the anterior portion of the patch and the peritoneum. We sweep circumferentially around the patch to be as sure as possible that the patch is laying flat and that nothing (bowel/omentum) is caught between the patch and abdominal wall. To fix the mesh against the abdominal wall, the positioning straps are sutured to the margins of the fascial defect with 2 resorbable sutures, and excess of the straps is excised. Although it is not specifically recommended, the anterior fascia is closed over the mesh using slowly resorbable material, in all cases, to minimise the risks for mesh infection. Closure of both subcutaneous tissue and skin occurred again using resorbable sutures. Both the surrounding muscle tissue, the subcutaneous tissue and the dermis are infiltrated using 20 cc of Ropivacain 7.5 mg/ml.
The success of fistula surgery depends on the closure of the internal opening which is the infecting source. The classical “laying-open” techniques suppress this orifice by opening the fistula tract, implying the division of at least a part of the sphincters in case of trans-sphincteric fistula: even when the division of the sphincter is performed in 2 or more stages, the surgery will result in a somewhat decreased competence of the anal canal. In presence of a supra-sphincteric fistula, the division of both the sphincters and the levators can induce dramatic faecal incontinence.

The rectal advancement flap technique has been described in 1902 by Noble in the treatment of rectovaginal fistula. The interest in anal fistula surgery is to achieve healing of the intra-anal opening, while avoiding sphincter division and subsequent functional impairment. The technique starts by the recognition of the complete anatomy of the fistula tract(s). All the extra-sphincteric tracts or cavities, located in the anatomic spaces around the anal canal, are excised whenever possible. This includes tracts or sequellae of previous abscesses located in the subcutaneous fat or the ischiorectal fossa. The very high ischiorectal or para-rectal cavities above the levators are curetted and eventually drained. The skin is largely excised and the wound left open in order to allow healing from the deepness to the surface. The mucosa around the internal opening is excised. The skin of the anal verge distal to the internal opening of the fistula is left intact. The intersphincteric space and the trans-sphincteric tract are curetted. The opening in the internal sphincter is then closed by absorbable sutures. A flap of rectal wall is dissected, with a base two times the width of the apex, as to ensure an adequate blood supply. The flap is advanced over the internal opening and sutured laterally to the anal canal mucosa and distally to skin of the anal verge, with absorbable sutures. The choice between the use of a full-thickness rectal wall, partial-thickness rectal wall or mucosal flap is debated.

Success rates range from 46% to 91% in the literature. The failures are divided between early failure of healing, and late recurrence of fistula after apparent primary closure. Failure rates are usually higher in presence of Crohn’s disease (29% to 44%). No other factors are clearly related to failure of the technique, while in our experience, postoperative diarrhoea seems to be highly deleterious. The continence is broadly reported as not impaired.

Rectal advancement flap is useful in the treatment of high trans-sphincteric or supra-sphincteric anal fistulas. Although not always successful in achieving healing of the fistula, this technique should be proposed as first-choice treatment in these cases, in order to avoid major sphincter damage and the risk of subsequent impaired continence.

6. — **GASTRO-JEJUNAL ANASTOMOSIS IN GASTRIC BYPASS”**.

E. van Vyve.
Clinique St Jean, Bruxelles, Belgium.

Since 1993, the department is involved in different surgical options for the treatment of severe obesity (3, 4, 5). After a visit in Sweden in 2005, the original technique described by H. Lönnroth and al. in 1996 (1), and confirmed in 2007 (2), has become the chosen surgical option for Laparoscopic Roux-en-Y Gastric By-pass (LRYGBP). Gastric bypass is one of the commonly used techniques to treat morbid obesity. Yet gastric bypass is not a simple and easy procedure. The risk of complications related to gastrojejunal anastomosis (GJA) is well-known.

From June 2005 to March 2009, 90 consecutive GJA were performed by a single surgeon. The same technique was always used: antecolic- antegastric position of the jejunal limb without division of the mesenteric sheet with a semi-mechanical termino-lateral gastro-jejunal anastomosis. The posterior layer is secured by a linear stapler device (ETS or ECHELON J&J -blue cartridge) with a length of about 45 mm. This step is performed between the posterior part of the gastric wall and the anti-mesenteric part of the jejunal loop, taking care of any torsion on the anastomosis. At that time, the staple line can be checked and a potential bleeding controlled. The anterior hole is then closed transversally and manually by a continued extramucosal suture with Vicry 2/0. At the end, a methylene blue test (60 cc plus air with a white swab positioned around the anastomosis) is performed.

Systematic drainage with a 24 French silastic tube is placed and removed on post-op day 2 while a Gastrografine swallow is realised on post-op day 1. Liquid intake is permitted once this control is negative.

Four peroperative methylene blue tests were positive (3 on the anterior layer and 1 left postero-lateral hole due to a perforation on the tip of the stapler) and were immediately and laparoscopically corrected. One “covered fistula” was visible on the post-op Gastrografin swallow without clinical expression. The food intake was delayed for 5 days after a second swallow control.

Two strictures were observed (one requiring 4 endoscopic dilatations). One stricture is related to a vertical anterior closure (healing spontaneously) since the other was caused by a “high position of the GJA on a very small gastric pouch”. No postoperative bleeding was observed.
This technique is safe according to the results of the literature.

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   Laparoscopic Gastric By-pass. Another option in Bariatric Surgery.

7. — CERVICAL MEDIASTINOSCOPY.
   P. De Leyn, W. Coosemans, H. Decaluwé, G. Decker, T. Lerut, Ph. Nafteux, D. Van Raemdonck

Patients with mediastinal lymph node (LN) involvement form a very heterogeneous group with different prognostics and therapeutic subsets. A subgroup of patients benefits from surgical multimodality treatment. Therefore, mediastinal staging procedures are a guidance of the multidisciplinary team to select patients for resection, based on both baseline and post-induction assessment.

PET scan has largely improved mediastinal LN staging. Due to its low PPV, positive mediastinal findings should always be cyto-histologically confirmed. Due to the high NPV of PET scan, invasive staging can be omitted in patients with Stage I NSCLC. However, in central tumours, PET N1 nodes or CT-enlarged LN’s (> 15 mm) invasive staging is recommended. Different techniques of invasive mediastinal staging are available. They vary in accuracy and procedure-related morbidity. For primary staging, mediastinoscopy remains the gold standard for the superior mediastinal LNs. Ultrasound-guided bronchoscopy with fine-needle aspiration (EBUS-FNA) and endoscopic oesophageal ultrasound-guided FNA (EUS-FNA) are techniques that also provide cyto-histological diagnosis and are minimally invasive. These techniques are complementary to mediastinoscopy and reduce the use of mediastinoscopy. The sensitivity of endoscopic FNA is high but the NPV is low. Therefore, if they yield negative results, an invasive surgical technique remains indicated. In patients with potentially resectable N2 disease, mediastinoscopy has several advantages over endoscopic FNA. By cervical mediastinoscopy, a full mapping is performed excluding N3 disease. Visual inspection distinguishes intra- from extranodal LN disease. Multilevel or extranodal disease has a dismal prognosis when treated with surgical multimodality treatment. For restaging in a surgical multimodality regimen, invasive techniques providing cyto-histological information are advisable despite the encouraging results with the use of PET/CT imaging. The NPV of endoscopic techniques in restaging mediastinal nodal disease is low and the accuracy of remediastinoscopy is much lower than obtained with baseline mediastinoscopy. The problems found in remediastinoscopy are mainly explained by adhesions from the first mediastinoscopy since mediastinoscopy (when no baseline mediastinoscopy was performed) after induction treatment obtains a high accuracy. This questions the timing of mediastinoscopy (baseline or at restaging). The conclusion is that optimal staging is a truly multidisciplinary process, with a variety of possible techniques, to be performed by experienced hands.
9. — GASTRIC TERATOMA: DIAGNOSIS AND TREATMENT.


A.Z., Brussel, Belgium.


With not more than 100 cases published in the world literature so far, teratoma of the stomach is truly an exceptionally rare tumour. We recently had the opportunity to diagnose and treat a newborn with gastric teratoma, and would like to share this nicely illustrated case with peers.

A 6-week-old boy, born after caesarean section for breech position at 40 weeks of gestation and uncomplicated pregnancy with a weight of 4,390 g, was admitted in hospital for investigation of hematemesis and melena since the age of 1 week, and increasing abdominal distension plus palor since a few days. The hematemesis was initially attributed to the presence of cracked nipples.

On admission, a hugely distended abdomen was striking. Blood analysis confirmed moderate anaemia. Alpha-fetoprotein level was 2735 kIU/l. Ultrasound diagnosed a huge abdominal mass, with solid and cystic components. MRI imaging was highly suggestive for teratoma. On several slides, ingrowth into the anterior wall of stomach could be nicely seen. Upper endoscopy confirmed the presence of an eroded tumour of the anterior gastric wall. The preoperative diagnosis thus was gastric teratoma. The patient was operated upon through a transverse laparotomy. After sectioning some adhesions between tumour and peritoneum, the tumour could easily be delivered out of the abdomen. The stalk to the anterior wall of the stomach measured 3-cm in diameter, and the tumour was removed with a 1-cm margin of healthy stomach wall all around. The 6-cm long gastrotomy was closed in 2 layers. The tumour measured 16×11×6 cm and weighed 800 gr. Recovery was uneventful. The baby was extubated on the third day after the operation, and was allowed to drink on the 5th POD. He was discharged from hospital on the 10th POD. Histological diagnosis was grade II-III immature teratoma. No yolk sac elements were seen.

The infant is doing fine since. He is on a regular follow-up scheme with bimonthly AFP determinations, and with endoscopy.

Gastric teratomas (GTs) are found mostly in male infants, the mean age at presentation is around 3 months. GTs usually present as an abdominal mass which may or may not produce intestinal (sub) obstruction. In the latter case, vomiting will be present. Gastrointestinal bleeding may occur as a result of ulceration of the intramural component. Respiratory distress may also be observed, as is failure–to-thrive. Diagnosis is obtained from abdominal X-rays (calcifications), abdominal ultrasound and MRI. Since the young age of the patients, AFP does not play a role for diagnosis, but it does in the follow-up. Complete surgical excision is curative. In contrast to other organs such as the ovary, where grade III immature teratomas are considered malignant and are treated with chemotherapy, those in the stomach all behave benign and do not need chemotherapy. Close follow-up, however, is mandatory.

10. — A MINIMAL INVASIVE TECHNIQUE FOR THE EVALUATION OF THE RADIOLOGICAL DIAGNOSIS OF INTESTINAL MALROTATION IN CHILDREN.


Emma Kinderziekenhuis/AMC and VUMc, Amsterdam; *UMC St Radboud, Nijmegen, The Netherlands.

Intestinal malposition and malrotation (IMM) are part of a spectrum of rotation anomalies and may cause feeding problems and/or other intestinal symptoms in childhood, from nausea up to intestinal volvulus. Radiological studies may be indicative, but the ultimate diagnosis of IMM remains surgical. A positive Upper Gastrointestinal Contrast Study (UGICS), especially in the presence of gastrointestinal symptoms, necessitates surgical exploration. The diagnosis and treatment (Ladd’s procedure) of IMM can be performed laparoscopically.

Since 2004, all paediatric patients with a suspicion of IMM on the UGICS undergo laparoscopic exploration at the institution. The aim of laparoscopy is: 1) diagnostic: to confirm the radiological diagnosis, by a 3-step exploration using three 3mm trocars, and 2) therapeutic: to perform an additional laparoscopic Ladd’s procedure, whenever necessary.

To study the value and feasibility of laparoscopy as a diagnostic tool for IMM, we review all operative findings in correlation with the radiological diagnosis.
Since 2004, 50 patients (34 males), with a mean age of 2.1 years, underwent explorative laparoscopy. All had symptoms and an UGICS suggestive for IMM. In 42%, a duodenal malposition was found and in 52%, a caecal malposition. Total intestinal malrotation, a combination of both, was confirmed in all patients with duodenal malposition. However, of the patients with a caecal malposition, only 69% had total intestinal malrotation. All malrotation patients underwent an additional laparoscopic Ladd’s procedure, 47% of which needed conversion for different reasons.

With a 100% follow-up ranging between 1 and 4 years (mean 2.5), no complications were noted. The described laparoscopic three-step exploration of the intestines is a standardised, straightforward and a safe tool for the minimal invasive diagnosis of IMM in children, and may prevent unnecessary explorative laparotomy in almost 60% of patients with UGICS suggestive for IMM – and even many more when a laparoscopic Ladd’s procedure is feasible.

11. — SERIAL TRANSVERSE ENTEROPLASTY IN PROXIMAL JEJUNAL ATRESIA.
U.Z., Gent, Belgium.

In proximal jejunal atresia, a large size discrepancy exists between proximal jejunum and distal small bowel. This has, traditionally, been managed by resection, tapering or plication of the proximal dilated segment. Many patients, however, also have only a short length of residual small bowel. In patients with impending short bowel syndrome, serial transverse enteroplasty (STEP) of the proximal dilated jejunum is a novel technique that tapers small bowel while preserving mucosal absorptive surface.

The clinical course of a newborn who presented a heterotaxy syndrome and high intestinal obstruction is reported. At laparotomy, malrotation with proximal jejunal atresia (due to intrauterine volvulus) was found. Distally, only 13 cm of terminal ileum was left. Ileocecal valve and colon were intact. Serial transverse enteroplasty, which involves sequential linear stapling of the dilated bowel from opposite directions to create a new “zig-zag” lengthened and tapered intestinal channel, was applied on the dilated proximal segment (measuring 15 cm in length). Postoperative recovery was uncomplicated. Enteral nutrition was initiated 2 weeks postoperatively. She needed supplemental parenteral nutrition till the age of five months. Six months postoperatively, she is thriving and has 2 to 3 bowel motions a day, which are well formed.

STEP is a useful strategy for managing the dilated proximal segment in jejunoileal atresia, especially when short bowel syndrome is imminent.
12. — CONGENITAL INTESTINAL PSEUDO-OBSTRUCTION: A DIAGNOSTIC AND THERAPEUTIC CHALLENGE.
V. Hartman, M. Ruppert, G. Hubens, L. Balliu, W. Vaneerdeweg.
U.Z.A., Antwerpen, Belgium.

Three cases of severe congenital intestinal pseudo-obstruction are presented. Despite the differences in etiology and diagnosis, the initial clinical presentation was very similar. In each case the tentative diagnosis was Hirschsprung’s disease. However for every patient a different diagnosis was eventually made: megacystis microcolon hyperperistalsis syndrome, intestinal neuronal dysplasia type B and hypoganglionis of the complete intestinal tract. All cases were, for a long period of time, dependent on parenteral nutrition. Only one child had been successful weaned to enteral nutrition. All patients were operated on, at a certain point in their life as a result of the intestinal pseudo-obstruction. The type of operation performed was mainly determined by the acute presentation, at a certain stage, and differed in all three cases. Severe intestinal pseudo-obstruction affecting all, or the greater part of the intestine, is rare. This clinical entity can be the result of a wide spectrum of myopathic and neuropathic abnormalities. Each pathology may have a different severity, clinical course and prognosis. In this presentation the various surgical options are discussed, focusing mainly on raising the chances of weaning the child from parenteral nutrition. Intestinal transplantation is one of the potential surgical treatments, but the major concern of the responsible physician (often involving physicians from other disciplines), should be to maximize the chances for each individual case.

13. — COELIOSCOPIC SPLENOPEXY FOR WANDERING SPLEEN IN A 2 YEAR-OLD-BOY.
G. Rodesch, E Van der Veken, N. Gauquier*, M. Franckson*, E. Van Hoorde*.

A 2-year-old boy presented with bilateral pneumopathy associated to left empyema. He was treated by antibiotics and thoracoscopic decortication. Although the drainage was efficient, fever persisted and he developed signs of mitral insufficiency. Endocarditis was proved by ultrasonography. A complementary scintigraphy with marked leucocytes was performed and showed a wandering spleen. Because of a hyperlaxity of the joints, genetic advice was also done and the associated diagnosis of Ehler-Danlos disease was established.
Two months later, the boy was totally asymptomatic. Wandering spleen was confirmed by CT scan and ultrasonography. A conservative approach was proposed by laparoscopy which showed unexpected volvulus of the spleen. Splenopexy was performed using a mesh bag. Although general recovery was observed the next morning, the patient was discharged four days later because of a viral gastroenteritis. Ultrasonography showed a well vascularised spleen, fixed underneath the left diaphragm.
14. — LAPAROSCOPIC PARTIAL SPLENECTOMY FOR NON-PARASITIC CYST OF THE SPLEEN: CASE REPORT.
L. Budiharto, P. Vuylsteke, B. Smet, P. Pattyn.
Heilig Hart Ziekenhuis, Roeselare, Belgium.

Non-parasitic splenic cysts are a rare condition and are mostly asymptomatic. Their origin is controversial, most probably congenital. The indications for operative treatment are excessive size and preventing cyst-related complications (bleeding, abcedation, rupture, hypersplenism). Partial splenectomy offers a definitive treatment while preserving splenic function, 25% of splenic volume is enough for adequate function. We present the case of a 14-year-old Jehovah’s witness with weight loss and epigastric pain. Computed tomography showed a large splenic cyst with a diameter of 16cm. Partial splenectomy was performed by laparoscopy. The pathology examination revealed an epithelial cyst. Laparoscopy offers a good minimally invasive treatment option for partial splenectomy in children obtaining pathological confirmation of diagnosis, reduction of cyst-related complications, and a short during of hospital stay.

15. — ISOLATED AND COMBINED LIVER TRANSPLANTATION IN CHILDREN LISTED FOR ELECTIVE AND HIGH URGENT TRANSPLANTATION. A SINGLE CENTRE TEN YEAR OUTCOME ANALYSIS.
U.Z., Gent, Belgium.

Survival after liver transplantation has improved significantly over the last decade with pediatric recipients faring better than adults. The last 10 years have been reviewed taking into account elective and urgent isolated or combined liver transplants in children. From January 1999 to November 2008, 40 children received 47 transplantations: 27 (57%) split, 3 (7%) reduced and 17 (36%) whole grafts. Mean age was 4.5 years old (SD = 5.3y). Thirty children were transplanted in the elective setting, 10 in the HU. Indications in the HU setting were acute fulminant liver failure of unknown origin (45%), alfa-1-antitrypsine deficiency (19%) and others as Hepatitis A, depakine-intoxication, veno-occlusive disease or neonatal cholestasis (each accounting for 9%). Transplantations in the elective group were mainly performed because of metabolic disorders (31%) or biliary atresia (22.5%). Two children received combined liver/kidney transplantation; one received liver/small bowel/pancreas transplantation. Using a Kaplan-Meier statistical method, an actuarial curve was defined. Differences in survival were calculated by log-rank test. After a median follow-up of 47 months (range 1-134), 3/10 (30%) children transplanted in the HU setting died (graft failure in 2 cases and an incurable cerebral mitochondrial disease in the other) whereas only one death (3%) occurred in the elective setting (graft failure). Since 2000 all of the children listed as elective candidates survived. The overall actuarial survival rate was of 90% (97% Elective vs. 70% HU ; p = 0.065). The results provided by this study are encouraging compared to the average survival of 70% recorded in the literature. Considering the broad spectrum of pathologies, a successful survival rate in children after 17 years’ experience in liver transplantation can be looked back on.
16. — THORACOSCOPIC REPAIR OF ESOPHAGEAL ATRESIA.

P. Philippe, M. Glass, J. Kieffer.
Centre Hospitalier, Luxembourg, Grand-Duché du Luxembourg.

For the past 60 years, the repair of esophageal atresia with or without tracheal fistula has been performed via thoracotomy. Recently, several teams have been performing this repair by thoracoscopy with good results. The experience on 5 newborns with esophageal atresia in which thoracoscopy was attempted is reported.

Seven children (4 girls, 3 boys) were admitted for esophageal atresia or esophagotracheal fistula between September 2003 and January 2009. A thoracoscopic approach was attempted in five cases. All children were operated within the first 48 hours of life. Mean birth weight was 2.5 kg (1.85-3.15). After endotracheal intubation, the patients were positioned in prone position, the right side elevated (30°). Three to four 3 mm trocars were inserted, with the first one in the 5th intercostal space for the camera and the others in the posterior and median axillary line one or two intercostal spaces lower than the camera port. A CO2 pneumothorax was created at a pressure of 4 mmHg. The fistula (if present) was first isolated, suture-ligated and divided. The esophageal anastomosis was made over a 4 F nasogastric feeding tube with interrupted 5-0 Vicryl sutures. In four cases, a chest tube was placed near the anastomosis. In one patient, a limited posterior sagittal anorectoplasty was performed for a rectovestibular fistula in the same session.

Three anastomosis could be completed under thoracoscopy. The two conversions were due to ventilation / oxygenation problems. Mean operation time was 168 min (130-225). Postoperative ventilation time was 2 to 3 days. Feeding through a transanastomotic tube was started after 2 days. A barium swallow on the 7th day demonstrated no leakage and oral feeding started immediately after. Mean hospital stay was 17 days (10-32). One child needed repeated dilatations for stricture at 1 year of age.

The thoracoscopic repair of the esophagus in newborns is feasible and offers many advantages like magnified vision, good isolation of the esophagus with respect to anatomical structures, lower postoperative morbidity and hospital stay and the avoiding of musculoskeletal sequelae from thoracotomy.

17. — DENTOFACIAL ASYMMETRY AND PLAGIOCEPHALY. A REVIEW OF CORRECTIVE PROCEDURES AT LEUVEN UNIVERSITY.


Asymmetry of the skull vault and base affects development of the middle and lower face and occlusion. Positional plagiocephaly needs to be discriminated from structural deformity due to anterior or/and posterior sutural stenosis. A review is given on the early treatments provided for plagiocephaly at the KU Leuven in the period 1995-2008. Twenty-seven patients with asymmetric coronary suture stenosis were treated by orbitofrontal remodelling during this period. Ninety-one patients with skull asymmetry proved mainly to be malformed by positional forces and were treated accordingly in a non surgical way. Treatment modalities and outcomes are reported. A comparison with reports in the literature is presented.
21. — ANAL NEOPLASIA.
D. Rothenberger.
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Anal neoplasms may originate either in the true anal canal or the anal margin. Biopsy for histology is needed to classify anal canal malignancies as squamous carcinoma, cloacogenic (basaloid) carcinoma, mucoepidermoid cancer, adenocarcinoma, melanoma, small cell carcinoma, and Kaposi’s sarcoma. Anal margin neoplasms are classed as squamous cell, basal cell, Bowen’s disease or perianal Paget’s disease. Many of these are treated by standard protocols.

Anal cancer is an emerging and potentially huge problem increasing in incidence throughout the world. The frightening problem is we don’t really know what to do about it. Known risk factors include HPV infection, prior cervical cancer or CIN III, a wife with cervical cancer, numerous lifetime sexual partners, solid organ transplants, HIV + status, anal intercourse, men who have sex with men (MSM), and smoking. There are over 80 subtypes of HPV and 23 that infect the anogenital mucosa. Types 1, 2, 4, 6, 11, 42, 43 and 44 are non-oncogenic and types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58 and 70 are oncogenic and AIN3 and cancer associated.

We now know that anal HPV is a prevalent problem. In women, the incidence is 27% of the general population, 42% of sex workers and IV drug users, and 76% of HIV + individuals. In MSM, the incidence is 60% if HIV – and 90% if HIV +. In preoperative kidney and liver recipients, the incidence is 23% if HPV + and in renal allograft recipients, the incidence is 47% for HPV 16. It is important to note that highly active anti-retroviral therapy (HAART) improves longevity but does not prevent development of cancer.

We know from the CIN experience that LSIL (low grade) represents a transient viral infection while HSIL (high grade) is a true precancerous lesion. If high risk HPV is present, the 2-year cumulative incidence of HSIL is 28% (vs 3% with no HPV). If untreated, 30-50% of HSIL will progress to invasive cancer but this takes years since the mean age of HSIL is 28 years vs mean age of cervical cancer is 50 years.

AIN is a premalignant lesion caused by HPV infection, analogous to CIN (cervix) and to VIN (vulva), VaIN (vagina), PIN (penis), and PaIN (perianal). AIN is diagnosed by cytology (Pap) and/or high resolution anoscopy performed with a culposcope. AIN in MSM has been studied by Goldstone (2001). Of 200 MSM (131 HIV +), 93% had + cytology, 54% had HSIL, 60% were biopsy + for HSIL, and 3% were biopsy + for squamous cell cancer. The major current problem is we do not know what to do if the diagnosis of AIN is made. Some recommend observation while others recommend ablation. This debate is likely to continue for some time as data is conflicting. Compliance is poor and cost of aggressive treatment regimens is high if aggressive therapy is instituted; proof of principle is lacking at this time.

HPV prevention is possible through chastity and monogamy (both partners) and by avoiding high-risk behaviour and immunosuppression but this is not easily accomplished as public policy. Aggressive screening and ablation of AIN if untreated, 30-50% of HSIL will progress to invasive cancer but this takes years since the mean age of HSIL is 28 years vs mean age of cervical cancer is 50 years.

A Hybrid Capture® test detects HPV DNA for 18 HPV types (13 high risk and 5 low risk) by a chemoluminescence assay. HPV vaccines are effective in preventing cervical cancer if administered before infection. For that reason, the current target is 11/12-year-old girls. It is not proven effective in men or immunosuppressed individuals. In summary, the risk and time course for AIN to progress to invasive cancer is poorly understood. There is significant risk with observation alone in immunocompromised patients but the efficacy of aggressive ablation is not yet proven. The role of HPV vaccine is currently under investigation.

22. — STENTING IN COLORECTAL CANCER.
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Endoscopic stenting has become an interesting alternative for surgery in the treatment of obstructive colorectal tumours. First as a non-surgical palliation of metastatic (sub)obstructive colorectal carcinoma. It can avoid stoma formation and its morbidity; hospital stay and time to chemotherapy are significantly shorter and overall survival seems slightly longer. The second indication is the temporary decompression as preparation for surgical resection of the obstructive tumour (bridge-to-surgery). Morbidity and mortality are inferior to urgent surgery and the long-term results (disease-free survival) are comparable.

Despite the cost of the device, stenting is also cost-effective by reducing operation time, hospital stay, nursing and stoma care.

The OLV experience, with almost 250 cases, confirms these promising results and; therefore, stenting has become the treatment of choice for palliation as well as for decompression of colorectal cancer.
23. — COLORECTAL SURGERY IN PRESENCE OF METASTASES.
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One third of the patients with colorectal cancer (CRC) present with synchronous metastases. Out of those with liver metastases (LM), only a few are candidates for initial hepatic resection, although it has been demonstrated that LM resection brings a significant outcome benefit for selected patients. On the other hand, the present chemotherapeutic agents and regimens offer an increased rate of tumoural response. Presently, the timing of surgical treatment of synchronous metastases is not well-defined and is still controversial because of a lack in prospective randomised trials. The present usual approach is either resection of the primary tumour at the same time as the LM with postoperative chemotherapy, or resection of the primary tumour followed by chemotherapy and delayed hepatic surgery whenever the LM stabilise or become resectable. However, in patients with multiple or large LM, postponing chemotherapy after the surgery of the primary tumour may result in progress of the liver disease beyond the possibilities of surgical cure.

Several situations are to be considered: 1/ Colon cancer with resectable LM: primary tumour surgery or liver surgery first, combined surgery, place of chemotherapy. 2/ Colon cancer with non-resectable LM: chemotherapy first, surgical algorithm, place of stents. 3/ Rectal cancer with resectable LM: liver surgery or chemo first, place of radiochemotherapy and TME. 4/ Rectal cancer with non-resectable LM: chemo first, place of surgery and radiochemotherapy.

The efficacy of the new chemotherapeutic agents and regimens, and the enlarged possibilities of liver surgery induce an evolution of the therapeutic algorithms in presence of colorectal cancer with synchronous metastases.

24. — RECURRENCE OF RECTAL CANCER.
R. Detry.
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The treatment of rectal cancer has changed dramatically over the last decade. Some decades ago, local recurrence rates (LRR) were reported in as many as 30 percent of the cases after curative resections. Stage (T & N) and level of the tumour were considered as the main adverse risk factors. Inappropriate resection due to an uneasy access to the pelvis was also evoked and attention was focused on the distal margins of clearance. Wider pelvic excisions were proposed but with a poor benefit (1). Preoperative radiotherapy proved then to significantly reduce the LRR to 15% versus 30% in the control group (2).

In the 80s, Heald and Quirke pointed (3, 4) out the importance of the mesorectum and of the circumferential resection margins (CRM), leading to the Heald operation, the Total Mesorectal Excision (TME). Stage of the tumour and inadequate surgery were so identified as the main determinant factors of local recurrence (5). Neoadjuvant radiochemotherapy (RCT) proved efficient in downstaging the tumours. All these data have been integrated in the Procare program. LRR after TME averages 8 to 10% with a mere 5% in some series (6, 7, 8, 9, 10).

In spite of all this, patients still develop local recurrence that significantly impairs survival and quality of life. Diagnosis of recurrence includes history, increased CEA values, progression of a mass at imaging techniques. MRI of the pelvis is the most appropriate for determining the extent of the recurrence and the resectability, CT of the chest and abdomen, PET scan are indicated for detecting distant metastases (11). PET CT is the most sensitive and could change the management in as many as 14% of the cases (12). Managing local recurrence is a challenge as pelvic recurrences are most often extensive with a poor prognosis. As for the primary tumour, surgery is the only therapy with curative potential. Pattern of recurrence (13), type of the initial operation and salvage possibilities are the main prognostic factors. Prognosis depends upon the possibility to perform a successful complete re-resection. Reported resectability rates range from 30 to 70% in the literature (38% in our experience) but only a half of the procedures have a curative intent (8, 14, 15, 16, 17, 18). The more extensive the primary procedure, the less often the redo possible. R0 resections are 2 times more often possible after initial conservative techniques than after abdomino-perineal excisions (19). After TME, 31 to
37% of curative resection rates are reported (8, 14). To achieve R0 resections, combined or extended resections are necessary in many patients (20, 21). Contraindications to major procedures include fixation to the lateral pelvic walls and upper sacrum, invasion of the pelvic nerves, bilateral ureteral obstruction, frozen pelvis, extensive distant metastases. Postoperative mortality and morbidity rates range from 2 to 8% (16, 22) and 21% to 82% (6, 16, 22) respectively. Oncologic results vary considerably with patient selection, oncologic treatment, and surgical aggressiveness. Five-year survival averages 25-30% and the 5-y local re-recurrence 47% (5, 6, 8, 23, 24). The best results are observed after R0 resection (45% vs 11% in our series) (14, 16, 22). Most recurrences will benefit from preoperative irradiation (25) when possible. Lesser benefit is obtained in the presence of distant metastases but concomitant distant tumours should not principally preclude re-resection if they are resectable. When curative surgery is not possible, palliative measures can be considered: stomal diversion, radiofrequency ablation (with significant morbidity) (26), radiochemotherapy, etc.

References


25. — HOW TO IMPROVE THE QUALITY OF RECTAL CANCER SURGERY THROUGH A NATIONAL PROGRAM.

D. Rothenberger.

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The public, third party payers and governments worldwide are demanding that providers and health systems use objective evidence to drive clinical decision making to enhance quality, safety and efficacy of medical care (1). Meeting that demand is complex and challenging. Many of the measures of quality being imposed on our profession today are process measures promoted as objective, measurable surrogates for quality. Often, available data from practice management and billing systems are extracted, compared and used to identify “high-quality” providers and institutions. Clinicians are justifiably skeptical of such approaches. Physicians and patients probably better understand and trust quality assessments based on actual treatment outcomes providing risk adjustments are made to account for patient and disease variables. Clinical trials are one way to assess outcomes but they generally are very specific to a particular stage of disease and usually compare a limited number of therapy options. Though highly reliable, they are expensive to conduct and are usually not broadly applicable to large populations with multiple variations in the disease being considered. There simply are not and will not be enough clinical trials to provide evidence to drive most decisions in clinical medicine. Another approach is to conduct outcomes studies by prospectively collecting data as patients are being treated and then to compare the results. While appealing, outcomes data are difficult and costly to collect. Additionally, to achieve statistically meaningful conclusions, data must be collected from a large number of patients. That reality demands that physicians and health care systems collectively act to develop standard definitions, agreed upon data elements, information systems, and ownership/use of data. Despite these barriers, such outcomes studies have been at the core of many national quality improvement programs. This is true of rectal cancer, the subject of this lecture and a current focus for the Belgian surgeons.

The treatment of rectal cancer has evolved dramatically in recent decades. Until the 1980s, most patients with locally advanced but potentially curable rectal cancer were treated by radical resection often requiring permanent colostomy. The surgeon’s primary goal was to achieve local control of the cancer without operative mortality. When reliable
circular end-to-end stapling devices were introduced, surgeons performed more sphincter-sparing low anterior resections and fewer abdominoperineal resections. As surgeons pushed the limits of low anastomosis, local recurrences became a major problem and anterior resection syndrome symptoms of urgency, frequency, tenesmus and incontinence were increasingly common.

Since 1982, R. J. Heald (2) has promoted the concept of total mesorectal excision for rectal cancer to minimise risk of local recurrence, maximise restorative anastomosis and maintain normal genitourinary function. In 1984, Phillips et al. (3) from St. Mark’s Hospital in London reported that local recurrence after curative intent resection of rectal cancer varied widely from surgeon to surgeon. Since then, many other studies have reported similar results and have shown that the surgeon is an independent variable predictive of local recurrences (4, 5). Wide variations in local recurrence, survival and restorative anastomosis have since been demonstrated in different countries and different patient care settings. Birbeck et al. (6) showed the quality of TME surgery is variable. Two factors most often identified with good outcome are specialty training and high case volume (7, 8). Quirke et al. (9) directed attention to the importance of assessing a previously neglected aspect of pathology reporting ie the circumferential radial margin. When involved or threatened by the rectal cancer, there is a high likelihood of local recurrence and poor survival.

Since technique is critically important to good outcomes and since accurate pathology assessment of the resected specimen including the radial margin is essential to accurately predict prognosis, one must ask whether surgeons can be taught to do an optimal proctectomy and whether pathologists can be taught to properly assess the resected specimen. Martling et al. (10) conducted TME workshops for surgeons and pathologists in Sweden and demonstrated dramatic drops in LR and deaths from rectal cancer in 2000. Wibe et al. (11) reported a similar experience from Norway. Many others have since reported similar data including the Dutch (12), the English (13), and the Canadians (14). Collectively, this experience shows that surgeons and pathologists can be effectively trained to achieve excellent outcomes through workshops and hands on intraoperative mentoring by experienced surgeons. Perhaps as importantly, the Mercury study in England (15) showed that workshops are an effective way to train practicing diagnostic radiologists to use MRI for rectal cancer staging. They showed that community radiologists could learn to accurately identify mesorectal involvement, pelvic lymph node metastases, pelvic sidewall involvement, and other organ spread from rectal cancer.

In addition to training the team of physicians involved in modern-day treatment of rectal cancer, it is essential that audits and prospective data collection be incorporated in the overall program to improve quality of care of patients with rectal cancer. This is perhaps best illustrated by the TME project in Stockholm, Sweden, conducted by the Stockholm Colorectal Cancer Study Group (SCCSG). In 1980, a multidisciplinary team representing all the Stockholm hospitals was formed to improve the care of patients with colorectal cancer. Soon, several important prospective clinical trials were completed (Stockholm I and II trials) (16, 17, 18, 19). Early in their experience, it was noted that their local recurrence rate was 12-15% whereas Heald (20) was reporting rates < 5% with TME. This motivated the Swedish surgeons to develop TME surgical and pathology workshops with 11 video-based live surgery and histopathology sessions. MRI staging was standardised in 1995 and used for staging. By 1995, clinical data on all rectal cancer patients was reported to the Regional Oncologic Centre by both the surgeon and the pathologist. Within two years of instituting the program, 83% of patients were treated with TME surgery. Data showed improved outcomes when the Stockholm trials were compared to the TME project: APR decreased from 58% to 27%; 5 year crude local recurrence decreased from 21% to 8%, and 5 year survival improved from 50% to 58%. Of interest, as the TME project continued, there was considerable voluntary self-selection and specialised with 5 high volume surgeons doing almost half the rectal cancers in Stockholm. Their outcomes were significantly better than lower volume surgeons (21).

Good data drives quality outcomes and use of synoptic or reports with embedded mandatory fields for surgeons to complete has been shown by the Cancer Surgery Working Group of Alberta, Canada, to increase accuracy (22). Similarly, use of proforma templates improves informational content of histopathology reports. Cross et al. (23) from the UK reported in 1998 that narrative vs synoptic pathology reporting of CRM increased from 3% to 100%, reporting of other resection margins increased from 54% to 100%; and TNM staging increased from 2% to 97%.

The United States faces some unique problems largely because of its highly competitive, fee-for-service system. There is currently an effort by the American College of Surgeons, the American Society of Colon and Rectal Surgeons, and the Society of Surgical Oncology to collaboratively launch a Network of Centres to Optimise Rectal Cancer Outcomes. We are following the work described above and hope to be as successful as other centres in the world.

You here in Belgium are to be congratulated for initiating an ambitious multidisciplinary program to improve outcomes, called Project on Cancer of the Rectum (PROCARE), and described at http://www.registreducancer.org. This program includes a national registry that began in 2006 and is open to all surgeons to voluntarily submit data on all rectal cancer patients. Already, data on over 1900 rectal cancer cases have been collected, a truly remarkable feat achieved in a short time. The major challenge now is to get more surgeons to participate and to get participating surgeons to forward follow up data on treated patients. The other activity was to launch a TME training program for Belgian surgeons using
trainers who have demonstrated ability to do TME properly as shown by pathology review. Apparently, there has been little use of this potentially great resource to date.

References
32. — EUROPEAN CRITERIA FOR OBESITY SURGERY AND THE ROLE OF CENTRES OF EXCELLENCE.

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Surgery is universally recognised as the only effective treatment for morbid obesity offering long-term sustained weight loss and resolution or significant improvement of obesity co-morbidities. This highly demanding and challenging surgical therapy necessitates the appropriate training and experience on the part of the surgeon and commitment for long-term patient follow-up. Additionally, institutional commitment to the excellent multidisciplinary care of the morbidly and super obese patient, who runs an exceptional surgical and anaesthetic risk, is essential to ensure the safe and effective performance of bariatric surgery. The necessary ancillary services, a multidisciplinary bariatric medical team, and the essential resources are of utmost importance for any institution that seeks to treat bariatric patients.

In an effort to improve the quality of services offered to bariatric patients worldwide, IFSO created guidelines that define the acceptable surgeon’s credentials and institutional requirements for safe and efficient management of morbidly obese patients. The implementation of the guidelines into a Centre of Excellence (COE) program in Europe is performed under the auspices of IFSO European Chapter in close collaboration with the European, Middle East and Africa’s National bariatric societies.

The European Accreditation Council for Bariatric Surgery is the organisation formed to examine surgeons and institutions in this region. (www.EAC-BS.com). Participants to the EAC-BS, and actively involved in the review process, are all Europeans IFSO Past Presidents, the current President of the European Chapter and senior bariatric surgeons from all European, Middle East and African National bariatric societies.

33. — MINIMAL INVASIVE PARATHYROIDECTOMY.


*APHM La Timone, Marseille, France.*

In the pre-imaging era, the gold standard for parathyroidectomy was bilateral exploration of the four glands via classical cervicotomy. With the development of excellent localising techniques such as ultrasonography and sestamibi scintigraphy, J.L. Doppman’s adage ‘In my opinion, the only localising study indicated in a patient with untreated primary hyperparathyroidism is to localise an experienced parathyroid surgeon’ no longer holds true. The increasing incidence of primary hyperparathyroidism together with improved imaging techniques and the knowledge that 85% of the patients will have uniglandular disease encourages the endocrine surgeon today to offer less invasive approaches. Surgical invasiveness is not merely the length or site of the skin incision but incorporates all the structures dissected during the procedure. Undoubtedly, the primary aim of these minimal invasive techniques is to achieve the same low morbidity and mortality rates with equal success as the classical approach. Postoperative cosmesis is a major concern for many patients, particularly young women, undergoing parathyroid surgery. Therefore minimally invasive parathyroidectomy should be defined as operations through a short, less than 3 cm skin incision that permits direct access to the parathyroid gland, resulting in focused dissection. In addition, the type of anesthesia, duration of the operation, postoperative pain, complication and success rates, and long-term outcome should also be taken into account to assess surgical morbidity. Minimally invasive parathyroidectomy may be divided into two groups: mini-open approaches performed under direct vision and endoscopic techniques. The latter can be further divided into minimally invasive video-assisted parathyroidectomy and the pure endoscopic techniques. The choice of approach is completely dependent on concordant preoperative localisation imaging techniques. The main goal of these localizing techniques is to determine laterality and distinguish anterior from posterior localised adenomas, enabling estimation of risk to the recurrent laryngeal nerve. Confirmation of successful removal of the adenoma can be achieved by intra-operative quick parathyroid hormone measurements. A fall of 50% from the highest pre-ablative level within 15 minutes after the removal of the adenoma is a good indicator of successful intervention, which can be confirmed by formal PTH assessment. Today, minimally invasive parathyroidectomy must be offered to all patients with sporadic primary hyperparathyroidism with concordant localisation studies, as an alternative for the classical cervicotomy with exploration of the four parathyroid glands.
38. — MANAGEMENT OF CARCINOMA OF THE HYPOHARYNX : THE POINT OF VIEW OF THE GI SURGEON.

University of Padova, Padova, Italy.

We present a retrospective cohort study, conducted in a university tertiary referral centre, of the results of surgery (resection and reconstruction with gastric pull-up or colon interposition) for carcinoma of the hypopharynx.

The treatment of carcinoma of the hypopharynx is a real challenge for the ENT surgeon, GI surgeon, radiation oncologist and medical oncologist. In the past, resection surgery used to be the preferred treatment for carcinoma of the hypopharynx. In recent years, first line chemoradiation is being used more and more frequently to avoid a major and frequently mutilating operation (i.e. laryngectomy) which entails high postoperative morbidity and mortality rates and a dismal long term survival. At present, surgery (salvage surgery) may be reserved for patients with persistent tumour after chemoradiation or with tumour recurrence after an initial complete clinical response.

From 1980 to 2007, 163 patients with carcinoma of the hypopharynx were prospectively observed. Patients with cancer of the cervical oesophagus without involvement of the hypopharynx, and those with hypopharyngeal involvement by primary or recurrent larynx cancer were excluded from the study.

Over a period of time, the standard of treatment in the Institution changed in an attempt to preserve the larynx. It shifted from surgery to first line, and possibly definitive chemoradiation. Therefore, two periods were defined: 104 patients were observed from 1980 to 1992 (group A), and 59 from 1993 to 2007 (group B).

Clinical TNM stage at presentation was comparable in group A and group B (p=0.66): Stage II 38%, Stage III 60%. Significantly, less patients underwent first line chemoradiation in group A (48/104, 46%) as compared to group B (48/59, 81%) (p < 0.01). The most frequently used chemoradiation regimen consisted of 2 cycles of cisplatin-fluorouracil followed by radiotherapy (45-50 Gy) concomitant with 2 more cycles of chemotherapy; when a good response was obtained, a boost of radiotherapy was given both to the tumour (to reach 65-70 Gy) and to regional lymph nodes (to reach 60 Gy).

Significantly, more patients underwent resection surgery (67/104, 65% ; with 57 R0 resections) in group A as compared to group B (22/59, 37%; with 19 R0 resections) (p < 0.01). Of these patients, 38% in group A and 68% in group B had undergone chemo-radiation before surgery.

Total pharyngo-laryngo-oesophagectomy (TPLE) was the resection technique of choice, whereas pharyngo-laryngectomy plus cervical oesophagectomy (PLCE) was selectively used for smaller tumours. After TPLE, gastric pull-up was the reconstruction technique of choice, whereas colon interposition was a second choice option when the stomach was unsuitable or unavailable (e.g. too short to cover the long gap, previous gastric surgery, etc).

The type of operation is summarised in the following table:

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<tbody>
<tr>
<td>TPLE + GASTRIC PULL-UP</td>
<td>51</td>
<td>39</td>
<td>12</td>
</tr>
<tr>
<td>TPLE + COLON INTERPOSITION</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PLCE + JEJUNAL GRAFT</td>
<td>21</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>PLCE + MYOCUTANEOUS FLAP</td>
<td>5</td>
<td>4</td>
<td>1</td>
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</table>

Gastric pull-up was used in the majority of patients, independent of the time period. Interposition of the left colon had to be used in 6 cases because of a previous gastric resection; and in 6 cases because the stomach was too short to cover the long gap up to the base of the tongue.

Postoperative morbidity and mortality after gastric pull-up and colon interposition are summarised in the following table. On the other hand, the results obtained with limited cervical resections and reconstruction with free loop jejunal graft or myocutaneous flaps are beyond the scope of this study.
As far as gastric-pull-up is concerned, the rates of anastomotic leakage, necrosis of the stomach, and postoperative mortality greatly improved over time. As suggested by Collard in 1995, it is possible that these improvements may partly be related to the good blood supply of the whole stomach (used in group B), as compared to the more questionable vascularisation of gastric tubes (used in group A). However, the overall rate of postoperative complications, including any major and minor complications, remains relevant. This fact may at least partly be related to the higher prevalence of preoperative chemoradiation in group B (68%) as compared to group A (38%).

As far as colon interposition is concerned, it has to be remarked that the rates of anastomotic leaks, overall postoperative morbidity, and postoperative mortality remained high over time.

The overall 1-, 3-, and 5-year survival after R0 surgery (n = 76) was 71%, 37%, and 30%, respectively, with no significant differences between group A and group B (p = 0.61).

In our opinion, first line chemo-radiation is the treatment of choice for carcinoma of the hypopharynx, and surgery should be reserved as a salvage procedure in the case of persistent or recurrent cancer. It should be underlined that this type of surgery requires a highly mutilating resection, and continues to entail high morbidity and mortality rates. When surgery is an option, gastric pull-up (and free jejunal graft) has to be considered as the first choice reconstruction technique, whereas colon interposition should be reserved as a second choice procedure because of the high postoperative morbidity and mortality rates.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Gastric pull-up:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anastomotic leak</td>
<td>8 (15%)</td>
<td>7 (18%)</td>
<td>1 (8%)</td>
</tr>
<tr>
<td>Necrosis</td>
<td>3 (6%)</td>
<td>3 (7.7%)</td>
<td>0</td>
</tr>
<tr>
<td>Pulmonary complications</td>
<td>11 (21%)</td>
<td>9 (23%)</td>
<td>2 (17%)</td>
</tr>
<tr>
<td>Cardio-vascular complications</td>
<td>3 (6%)</td>
<td>3 (8%)</td>
<td>0</td>
</tr>
<tr>
<td>Postop. morbidity (major + minor)</td>
<td>29 (57%)</td>
<td>23 (59%)</td>
<td>6 (50%)</td>
</tr>
<tr>
<td>30-day or in-hospital deaths:</td>
<td>7 (14%)</td>
<td>7 (18%)</td>
<td>0</td>
</tr>
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<td>due to: necrosis and sepsis</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>pulmonary+cardiac complic.</td>
<td>2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>pulmonary complications</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>myocardial infarction</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Colon interposition:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anastomotic leak</td>
<td>2 (17%)</td>
<td>1 (17%)</td>
<td>1 (17%)</td>
</tr>
<tr>
<td>Necrosis</td>
<td>1 (8%)</td>
<td>1 (17%)</td>
<td>0</td>
</tr>
<tr>
<td>Pulmonary complications</td>
<td>1 (17%)</td>
<td>1 (17%)</td>
<td>1 (17%)</td>
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<tr>
<td>Cardio-vascular complications</td>
<td>1 (8%)</td>
<td>0</td>
<td>1 (17%)</td>
</tr>
<tr>
<td>Postop. morbidity (major + minor)</td>
<td>9 (75%)</td>
<td>6 (100%)</td>
<td>3 (50%)</td>
</tr>
<tr>
<td>30-day or in-hospital deaths:</td>
<td>2 (17%)</td>
<td>1 (17%)</td>
<td>1 (17%)</td>
</tr>
<tr>
<td>due to: necrosis and sepsis</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>myocardial infarction</td>
<td>1</td>
<td>-</td>
<td>1</td>
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</table>
1. — LIMITS OF CURABILITY IN LIVER METASTASES FROM COLORECTAL CANCER.
U.Z.A., Antwerpen, Belgium.

More than 50% of all patients with colorectal carcinoma will develop liver metastases. If liver metastases are completely resected (R0 resection), 5-year survival is between 30 and 50%. Without resection and with the most recent chemotherapeutic protocols, a median survival of 2 years can be achieved but with almost no 5-year survival. Defining the criteria for resectability is of utmost importance, as resection is the only chance for cure.

Formerly, tumour factors related to the extension of liver metastasis were generally accepted as criteria for resectability: a maximal tumour diameter, a maximal number of tumours, unilobar localisation and a resection margin of at least 1cm. Finally, extrahepatic localisation was considered an exclusion criterium. Actually, using these criteria could deny a chance for curative resection to a lot of potential candidates.

Nowadays, the main criteria regarding tumour factors defining resectability of colorectal metastasis are:

1. the possibility to achieve an R0 resection; incomplete resection (R1) results in disastrous patient survival, comparable with patients who were not resected at all.
2. no tumour progression after neoadjuvant chemotherapy; this latter is proven to be a very negative predictor of survival even after R0 resection.

To achieve R0 resection, at least one hepatic vein and one ipsilateral portal vein should be free of tumour. On the other hand, there are no restrictions anymore on tumour size and on number of metastases, although a higher number of radically resected metastasis has a less favourable 5-year survival. Bilobar metastasis can be resected by multiple segmental or subsegmental resections. Resection margins of > 1 mm are equal to larger margins in terms of survival. Extrahepatic localisations (e.g. pulmonary metastases) are not longer considered anymore as a contraindication for liver resection, as far as the extra-hepatic localisation can be removed completely.

A third criterium that defines resectability is the size and the quality of the future liver remnant.

With the expansion of the tumour criteria for resectability, much more extended liver resections can be performed to achieve R0 resection. In these cases, the limits of resectability are also defined by the amount of liver tissue left in the patient ("the liver remnant"). In a liver with normal parenchyma and regeneration potential, a remnant of 30% is generally considered to be safe. A too small liver remnant is known to have a high risk for postoperative liver failure and impaired liver regeneration, worsening the perioperative morbidity and/or mortality with a negative impact on the overall survival.

Most patients with colorectal metastases undergo chemotherapy before they are considered for hepatectomy. The most efficient chemotherapy (Oxaliplatin, Irinotecan) is hepatotoxic and create some grade of histologic disturbances in the liver. This can result in reduced quality of liver parenchyma and impaired regeneration capacity. Therefore, the surgeon should choose a safer approach regarding the liver remnant in patient with recent chemotherapy.

Nevertheless, a lot of patients with colorectal liver metastases will be considered as initially non resectable, due to the inability to achieve R0 resection or to an insufficient future liver remnant.

The limits of curability can be pushed even more by some techniques: initially non resectable can turn into resectable. Downstaging metastasis by neoadjuvant chemotherapy can result in R0 resection. Using ablation techniques (e.g. radiofrequency) instead of resection can spare more liver tissue and leave a bigger remnant, although it is still doubtful that ablation is as radical as resection in terms of tumour eradication. The future liver remnant can be increased by pre-operative portal vein embolisation; this results in hypertrophy of the non-embolised liver segments.

Finally, sparing as much as possible non-tumoural liver tissue should be a main objective when performing liver resection for colorectal metastases: besides avoiding the hazards of a small liver remnant, this less invasive approach keeps more possibilities open for a new hepatectomy in case of recurrent disease. Recently, some argue that the smaller the proportion of non-tumoural liver tissue is resected, the better the patient survival.

Formerly, resectability of colorectal liver metastasis was mainly defined by tumour characteristics. Nowadays, resectability of colorectal liver metastasis is mainly dependent of what is left after liver surgery: this liver remnant should be free of tumour (R0 resection); the size and quality of the remnant should be enough to guarantee an uneventful perioperative outcome.
Hepatotoxicity from neoadjuvant chemotherapy before liver resection for colorectal metastases (CRLM) has been recently reported. The purpose of the present study is to evaluate the prevalence and the clinical relevance of this phenomenon.

**Design:** retrospective study.

**Setting:** academic secondary referral hospital.

One hundred patients suffering from CRLM and having undergone at least the resection of one liver segment (114 hepatectomies (100 first, 13 second, 1 third)) were enrolled. The surgical specimens were reviewed using standardised criteria for diagnosis and grading of pathological liver changes. Their impact on perioperative bleeding, transfusion, morbidity and mortality rates after liver resection was studied.

Sinusoidal congestion was the single hepatotoxic lesion significantly more frequently encountered in patients having received neoadjuvant chemotherapy (p = 0.0014), even in patients having received chemotherapy more than 6 months before liver resection, but was not related to the type of chemotherapy. Despite a significant increase in perioperative blood losses, the presence of sinusoidal lesions, even severe, had no clinical significance on postoperative mortality, morbidity and transfusion rates.

Neoadjuvant chemotherapy before surgery for CRLM is significantly associated to sinusoidal congestion, irrespective of the type of chemotherapy but without any significant impact on postoperative clinical outcome. Sinusoidal lesions persist more than 6 months after the completion of chemotherapy.

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**45. — MANAGEMENT OF COLORECTAL LIVER METASTASES AFTER COMPLETE RESPONSE TO SYSTEMIC THERAPY.**

B. Topal.

*U.Z. Gasthuisberg, Leuven, Belgium.*

Surgical resection offers the only chance of long-term survival for selected patients with colorectal liver metastases (CRLM). For patients with initially unresectable CRLM, systemic chemotherapy is able to convert about 15% into resectable disease, resulting in 5 y-survival rates of up to 35%. In patients with resectable CRLM, a recent EORTC trial showed neoadjuvant FolFox4 to improve progression-free survival rates but not overall survival. While response rates (RR) with irinotecan or oxaliplatin based chemotherapy regimens can be up to 50%, RRs with the combination of systemic chemotherapy and biological anti-cancer agents are even higher. Complete radiological response is observed in a substantial number of patients with CRLM, and creates a decisional dilemma with respect to the best management strategy. Since complete radiological response does not correspond with complete pathological response in most of the cases, the current management strategy is surgical resection whenever possible and dependent on local multidisciplinary decision-making. However, no randomised trials are available to study the oncologic outcome after observation vs. resection of CRLM in patients having complete radiological response with systemic therapy.
54. — WORKING TOGETHER OVER THE WORLD - SURGERY IN NEPAL.
M. Lal Shrestha.
Nepal Medical College & Teaching Hospital, Kathmandu, Nepal.

Nepal is a landlocked country between China and India with about a 28 million population, concentrated in the south, the Tara region and less and scattered populations in the north because of mountains and difficult approach. There are 8200 doctors registered in the Nepal Medical council and less than 500 Surgeons in the country with very few super specialists.

Surgical services are available only in the big Nepalese cities and provided by zonal, regional and central government hospitals and by private hospitals too. People of villages, small towns and remote areas are still deprived of surgical services.

Pattern of surgical diseases are like in other parts of the globe, except for a few specific diseases which are related to the different genes, different geographical regions, different socioeconomic statuses, health variations and other tropical diseases. Diseases due to tuberculosis, enteric infection worms, poor hygiene and ill nutrition are specific to Nepal. Late patient presentations are the main cause of high morbidity and mortality.

We practice many modalities of disease management as in the developing countries, but we lack the modern advanced equipment and advanced research work due to financial constraint which limits the more advanced surgical services. During the establishment of the surgical services in general and super specialized surgical services, friends from different health institutions, international organizations across the world have been working together and still some of them are continuing their collaboration in establishing the health institutions, training and educating health manpower and providing the specialized surgical services in cities and remote areas of the country.

63. — MANAGEMENT OF A PATIENT WITH AN ABDOMINAL WALL TUMOUR.
S. Bonvalot.
Institut Gustave Roussy, Paris, France.

Primary trunk wall tumours are mainly represented by soft tissue sarcomas and aggressive fibromatosis. Preoperative diagnosis is very important to decide the proper extent of the surgery and to discuss neoadjuvant treatment in case of locally advanced tumours or in specific pathological subtypes.

The standard approach to diagnosis (ESMO clinical recommendations, Ann Oncol. 2008) consists of imaging (contrast-enhanced MRI is the preferred method for superficial trunk lesions) followed by core needle biopsies (16 G). However, an excisional biopsy may be the most practical option for < 5 cm superficial lesions.

Pathologic diagnosis relies on morphology and immunohistochemistry and should be made according to the WHO classification. It should be complemented by molecular pathology (FISH, RT–PCR) when the clinical pathologic presentation is unusual, or when the histological diagnosis is doubtful. When possible, the malignancy grade should be provided in all cases. In Europe, the FNCLCC grading system is generally used, which distinguishes three malignancy grades (Trojani, Int J Cancer 1984). A core biopsy may underestimate the tumour malignancy grade, so that radiological imaging may add to pathology when preoperative treatment is an option.

A chest CT scan is mandatory for staging purposes in order to determine treatment planification. Surgery is the standard treatment for localized soft tissue sarcomas. It should be performed by a surgeon trained in the disease. The standard surgical procedure is a wide excision. This implies removing the tumour with a rim of normal tissue around. One centimetre has been selected as a cut-off in some studies, but it is important to realize that the margin can be minimal in the case of resistant anatomic barriers, such as muscular fasciae. The surgical report should provide details on the surgical conduct with regard to possible contaminations (i.e. it should mention whether the tumour was opened, etc.). Reconstructive surgery is often necessary, calling in different mesh and musculo-cutaneous flaps.

The risk of local recurrence depends on tumour biology (i.e. grade) and quality of surgery as defined by the quality of margins. Quality of margin should be expressed according the UICC residual disease definitions (R0 : in sano, R1 : microscopic residual disease, R2 : macroscopic residual disease).
Neoadjuvant chemotherapy may be of choice in high grade tumours, especially when a tumour response is felt to be able to give a technical advantage to surgery. Adjuvant chemotherapy is not a standard treatment in adult-type soft tissue sarcomas, and can be proposed as an option to the high-risk individual patient. Radiotherapy is an option in selected cases. Concerning fibromatosis, standard treatment for primary disease is wide excision. But observation is another option in selected cases, after shared decision-making with the patient, taking into account the indolent natural history of some clinical presentations. Treatments should be provided in specialised centres within a multidisciplinary team.

64. — THE SURGICAL MANAGEMENT OF SOFT TISSUE TUMOURS ARISING IN THE ABDOMINAL WALL.
A. Hayes.
Royal Marsden Hospital, London, U.K.

Soft Tissue Sarcomas (STS) are rare mesenchymal malignancies that can arise at any anatomical site but with a preponderance for the trunk and extremities. Therefore, STS arising within the abdominal and chest wall will form a substantial part of the work load of any major Sarcoma Unit. Other non-malignant soft tissue tumours can affect the abdominal wall with fibromatosis (desmoid tumours) being particularly common at this site. The principle treatment strategy for STS at any site is surgical resection with wide margins sometimes coupled with adjuvant radiotherapy. Chemotherapy for most STS has little role in primary management. In this presentation operative strategies for STS and fibromatosis affecting the abdominal wall will be discussed.
66. — THE LOK-GLEM GROUP N° 1273 ; A NATIONAL QUALITY CONTROL GROUP ON THORACIC SURGERY.
D. Van Raemdonck, A. Bouhouch, M. Cappello, G. Decker, Ph. de Francquen, P. De Leyn, T. Lerut, J. Hendriks,
Ph. Nafteux, Ph. Noirhomme, A. Poncelet, M.-J. Ruiz Patino, B. Rondelet, P. Rocmans, Y. Sokolow, C. Van De
Wauwer, P. Van Schil, L. Verougstraete, E. Wijtenburg
1U.Z. Gasthuisberg, Leuven, Belgium ; 2St Lucas Hospitaal, Winschoten, The Netherlands ; 3Hôpital Erasme, Bruxelles,
Belgium ; 4Hôpital Ste Thérèse, Luxembourg, Grand-Duché du Luxembourg ; 5U.Z.A., Antwerpen, Belgium ; 6Cliniques
Universitaires St Luc, Louvain-en-Woluwé, Belgium ; 7U.Z., Groningen, The Netherlands ; 8St Trudo Ziekenhuis,
Sint Truiden, Belgium ; 9Hôpital de Jolimont, Haine-Saint-Paul, Belgium.

The local quality control groups (LOK-GLEM) were created by the federal health authorities in 1996 to stimulate dis-
cussion amongst peers dealing with the same pathology with the aim to improve the quality of health care in Belgium.
Membership is limited to one LOK-GLEM group only.

Thoracic surgery in Belgium is performed by a large number of surgeons with a different background training. It is
unknown how many of these surgeons are grouped in a LOK-GLEM to discuss thoracic surgical pathology.

The evolution in the number of members and different hospitals represented in a national LOK-GLEM group on
thoracic surgery between 1996 and 2008 is described.

The official membership list of the LOK-GLEM group N° 1273 was reviewed, based on the regular update provided by
the RIZIV-INAMI.

The number of LOK-GLEM members rose from 7 to 19 during the study period. The number of different national insti-
tutions represented, however, increased from 4 to 6 only. At present, four universities (KUL-UA-ULB-UCL) and two
non-university departments of thoracic surgery are represented in the group. The number of members coming from a sin-
gle institution varies from 6 (university hospital) to 1 (non-university hospital). Three members formerly trained at one
of the Belgian institutions are currently working in a thoracic centre abroad. Ten members are working in a department
dealing with thoracic surgery only (including oesophageal [n = 4] or endocrine [n = 6] surgery), 4 members in a thoraco-
vascular department, 3 members in a cardio-thoracic department, and 2 members in a thoracic and visceral department.

Invitations to attend the meetings (4/year) are also sent to other interested thoracic surgeons non-members of the group,
but the attendance is low.

The national LOK-GLEM N° 1273 groups members from institutions predominantly dealing with thoracic surgery, both
from university and non-university hospitals. Three university centres (UG-UB-ULG) as well as other larger hospitals
with a profiled thoracic surgeon are not represented. Quality control amongst peers practising thoracic surgery may
receive less attention compared to other surgical specialities (abdominal, vascular, cardiac).

67. — THE THORACIC DATABASE AT HÔPITAL ERASME.
Y. Sokolow, B. Rondelet, M. Ruiz, M. Cappello.
Hôpital Erasme, Bruxelles, Belgium.

Way back in the seventies, P. Vanderhoeft created a database in our department of thoracic surgery by using an
ingenious system of punched cards.

This system was easy to fulfil and to use, but some difficulties did occur when retrieving information. Only a small
number of data could be found as part of them were written on the card itself.

In the nineties, we developed a programme using File Maker Pro® which allowed us to collect more clinical, surgical
and oncological information regarding each patient. This database is easy to use, not time consuming and allows a quick
information research. In order to obtain a complete chart, each member of the staff includes the patient’s information at
the time of the dictation of the medical record.

The goals of our database are to allow a quality control of our activity, to monitor our surgical activity, to make
retrospective studies and to share our data with other institutions (for example, the European Database of ESTS).

Therefore, we think it is essential that each surgical department should be able to benefit from a comprehensive
database.
68. — THE THORACIC DATABASE AT THE UNIVERSITY HOSPITAL ANTWERP, EDEGEM, BELGIUM.
J. Hendriks.
U.Z.A., Antwerpen, Belgium.

Since the start of the Department of Thoracic and Vascular Surgery as a separate service in the year 1992, a databank with a numeric code for all procedures (non-cardiac thoracic and peripheral vascular) was installed. The primary goal was to evaluate progression of the service by numbers and to make annual reports. In 2004, all non-cardiac thoracic procedures performed at our service were collected in the new ESTS Thoracic Surgery Database project. Up till 2008 all required data were entered by one surgeon of our service as it was most convenient at that time. In the near future all surgeons of our service involved in non-cardiac thoracic surgery will be able to enter their data with a password. In 2007, we used the ESTS Thoracic Surgery Database with two other European centres to compare outcome of patients who underwent major lung resection for lung tumours for the period January 2004 and December 2006. The main objective was to test the ESOS.01 logistic equation as a tool to evaluate in-hospital mortality in an objective way between centres. The outcome endpoints are still the most widely used indicators of quality. However, whenever used to evaluate the providers’ performance, outcomes need to be adjusted for the different case-mixes that may characterize different institutions or, even, different periods of activity. The use of crude outcome rates may, in fact, lead to misleading information with inherent important clinical and administrative consequences for the unit, and to unethical risk-averse behaviours. The results of this study were presented at the 15th European Conference on General Thoracic Surgery and published in the European Journal of Cardio-thoracic Surgery in 2008. They showed that a risk model developed from a multi-institutional international dataset may be easily applied for comparative audit at local sites and that future efforts are warranted to refine the model and develop other indicators of quality.

70. — THE EUROPEAN SOCIETY OF THORACIC SURGEONS DATABASE AND ACCREDITATION.
A. Brunelli.
Umberto I Regional Hospital, Ancona, Italy.

Managed care system, public accountability, cost containment, pay-for-performance and ranking culture demand Quality of care to be monitored through appropriate instruments. Outcome endpoints (i.e. morbidity and mortality) are still the most widely used quality indicators in thoracic surgery. Outcomes however should be reported in the most correct way to prevent risk-averse behaviours and misleading information. They need risk-adjustment, as different case-mixes at different institutions may influence outcome and those units operating on older and sicker patients would be penalized without an appropriate risk-adjustment. Therefore, risk-modelling must become the logical and necessary approach for provider profiling and comparative audit. The most important tool of any quality assessment endeavour is a database that is made up of a representative sample of the study group of interest. The golden standard for data should be a specialty-specific, procedure-specific, prospectively maintained, periodically audited, electronic database that contain, at the minimum, a core set of variables that has been demonstrated to be associated with outcome.

Although in many settings administrative databases are used to evaluate performance since they are readily available and relatively inexpensive, these datasets have many disadvantages that contraindicate their use for clinical audit. The most important problems with administrative data are the following: as they are mostly collected for billing purposes, critical variables may be unavailable, there may be a difficult differentiation of co-morbidities from complications, they may exclude important variables that are not billable diagnoses, limit the number of secondary diagnoses and generally have poor flexibility to properly classify certain co-morbidities. For all these reasons, claims data should be avoided whenever possible for clinical audit purposes. The practical steps that should be planned and possibly recorded to construct a solid clinical database are a clear definition of the data sources and the creation of a list of variables (and their definitions) that will constitute the database.
These steps will permit that 1) the database can be used even by subjects that did not participate to its construction, 2) the database can be audited by external data managers to assess quality of data, 3) changes in data collection or variables recording may be adequately planned.

The importance of the source and the quality of data cannot be overemphasized enough. Most of the data of clinical interest derive from clinical records or other attached documents, such as laboratory exams or PFTs. One of the most critical aspects of the database construction is the extraction of the data from the medical record to the database. Wherever possible, data should be entered in real time, at the point of capture; to this end a networked database should be accessible in the operating theatre, the ward, the clinic and the multidisciplinary team meeting room. When possible this data should be used to generate documents such as operation notes, MDT report, correspondence, so that data capture becomes integral to routine patient care.

The person in charge of capturing or transferring data into a database should be properly qualified and adequately trained.

A Clinical Audit Lead should be selected within each unit who will be responsible for the accuracy and quality of data collection.

The data should be periodically checked for discrepancies, inconsistencies, missing values, in order to ensure a high quality database. In fact no model or predictive equation can be better than the data upon which it is based. If any underperformance in data collection would be detected this should be reported to all persons involved in the process of data recording with the final objective of continuously improving the quality of the database. Collecting data, maintaining an updated dataset, periodically assessing the quality of data may involve substantial costs. Furthermore, the logistical costs attributable to database management add to the costs of analysing data, generating and reporting results, and implementing quality measures that are suggested by data analysis. Nevertheless, the final objective of any data collection is improving quality of care. Even if start-up costs may be daunting, ultimately improved quality of care will be cost-efficient, since the least expensive means to accomplish a task (health care delivery) is the means that employs the highest quality in the process.

Hospital administrators have to appreciate the economic importance of data collection; cost savings as a result of improved quality of care can be used to offset costs of gathering data and implementing clinical databases.

The European Society of Thoracic Surgeons recently appointed a Database Committee responsible to develop and maintain an online clinical Database with the aim to collect clinical data from thoracic surgery units across Europe. A first version was launched in 2001 and collected data on all thoracic procedures until December 2003. 27 units from 14 Countries across Europe contributed consistently to the Database. A first analysis on lung resection was published in 2005 and reported on the methods of development of a in-hospital mortality risk-adjusted model for lung resection. Two models were substantially developed and validated. One incorporating subjective measures and called ESSS (ASA and Dyspna score) and the other one built with objective measures such as age and ppoFEV1 and called ESOS.

These models were derived from 1694 lung resections for lung tumours and validated on another 1126 patients showing satisfactory calibration.

The equation for the ESOS.1 model is the following: \( \ln \frac{R}{1-R} = -5.8858 + 0.0501 \times \text{Age} - 0.0218 \times \text{ppoFEV1} \)

The ESTS Database version 1 had several limitations and potential area for improvement:

- Low rate of accrual
- Only 27 units (of 120 who enrolled) contributed at least 95% complete data
- Scarce representativeness of the European thoracic surgery activity
- ppoFEV1 and ppoDLCO calculation not standardized
- ppoDLCO reported only in 25% of patients
- Potential predictors missing (i.e. cardiac status)
- 30 days mortality, incomplete data, not used for modelling
- Morbidity not risk-modelled
- Statistics to be refined (bootstrap, hierarchical model)

ESOS was recently used to assess the performance of 3 different European thoracic surgery units. This study was performed on behalf of the ESTS Audit and Clinical Excellence ad hoc Committee, and included 695 patients submitted to major lung resections from 2004 through 2006 at 3 centers. Data were prospectively collected at each unit in clinical, electronic and periodically audited datasets. Variables and endpoints of interest were selected and merged in a merged centralized dataset. A preliminary scrutiny of the quality and consistency of variables across the 3 units was a priority of this project. ESOS.01 was applied to estimate the in-hospital mortality of each patient.
Finally, predicted and observed mortality rates were compared within each unit without showing any statistically significant differences.
The ESTS Audit and Clinical Excellence Committee was able to draw several Quality management inferences from this study:

- The quality of data collection is essential for every quality management activity
- Mortality may be insensitive to quality, require long term evaluations and do not provide immediately actionable quality information
- Multiple risk-adjusted outcome indicators should be used for a more reliable and comprehensive provider profiling as they may reflect different aspects of quality (cardiopulmonary morbidity, technical complications, emergency ICU admission, residual function, quality of life, etc)

Furthermore, future directions were set:
- Refinement of data collection to improve their quality and cost-effectiveness
- Development of process-based indicators of quality
- Use of breakthrough reliability statistics (bootstrap) for cross-validation of models (Blackstone JTCVS 2001; Brunelli & Rocco JTCVS 2006)
- Research to identify the optimum time window for estimating and reporting performance
- Research of mechanisms for dealing with underperformance (peer-based confidential TQM projects)

In July 2007, the ESTS Database Committee launched the second version of the online European Thoracic Database. The database is linkable from the ESTS website at the following address (https://www.thoracicdata.org). A form must be filled to obtain a userID and password to login and join the database project. The database may be used as an internal data capturing tool and for contributing the Lung Resection Risk Model Project, which aims at improving the previous risk model for mortality by adding critical variables such as DLCO and cardiac co-morbidity.

The European Database allows the inclusion of process measures of performance. Until recently, quality improvement initiatives and health care reform were focused on the short-term outcomes (i.e., operative mortality and morbidity). However, it is now recognized that such clinical outcomes are only one measure of overall health care quality. More comprehensive quality indicators are desirable, including intraoperative processes of care as well as perioperative measures that impact hospital outcomes, secondary prevention, and long-term health.

Indicators of Quality can be related to structures, process or outcome of health care.

“Structure” denotes the attributes of the settings in which care occurs (structural organization, human and material resources).

“Processes” measure the activities and tasks in patient episodes of care. From a performance management perspective, the key issue is that a desirable process should be unambiguously associated with improved patient’s health outcome. Monitoring the process can then be a substitute for measuring the outcome.

“Outcome” measures attempt to describe the effects of care on the health status of patients and populations. Process indicators of performance are incorporated in the European database with the aim to provide more comprehensive instruments of evaluation of performance.

Quality is an abstract construct that cannot be directly measured. In the nomenclature of modern measurement theory, it is characterized by one or more latent (unobserved) variables or traits.

To quantify abstract constructs like quality, intelligence, or musical ability, we typically rely upon some combination or composite of measurable surrogates that are thought to be associated with or contribute to that underlying trait.

The ESTS Database Committee has recently developed a Composite Performance Score, incorporating outcome and process indicators by using data collected in the European database. This composite score will be used for future ESTS credentialing initiatives.

Ongoing activities related to the ESTS Database include:

- European Database adopted by National Societies as National registry for credentialing and regulatory purposes
- European Database used as supranational credentialing instrument
- European Database used to develop and test new standardized pathways of care
- European Database as an international common platform for quality benchmarking
- European Database linked to the ESTS Directory of Thoracic Surgery with updated data on European thoracic surgery activity. (http://www.thoracicdirectory.org/)
72. — CHEST WALL RESECTION WITH THE AID OF THE PLASTIC SURGEON.
E. Dajbog, E. Wijtenburg, D. Rossillon, M. Lismonde, T. Thomas, P. Van Ruyssevelt.
Hôpital Jolimont, Haine-Saint-Paul, Belgium.

Multidisciplinary management of chest wall surgery is reviewed. Chest wall defects are frequently seen in all regions of the thorax. Resection and reconstruction may be required in cases of tumour, radiation injury, trauma or infection. Recent surgical techniques have provided solutions for minimal functional and aesthetic disability.

Assessment in chest wall surgery includes evaluation of location, extension, and aetiology of the lesion. In tumour surgery, the result has to be oncologically sound. After resection, tissue flaps are often needed to provide vascularised tissue over prosthetic materials used to stabilize the chest wall, to cover structures and to fill dead space. Reconstruction has to ensure stability of the chest wall, normal ventilation, protection of intrathoracic organs, and should be aesthetically correct.

The surgical technique, the prosthetic materials and the permanent collaboration between the thoracic and plastic surgeon can provide optimal functional and aesthetical results after chest wall surgery.

73. — THORACIC SPINE SURGERY WITH THE AID OF THE THORACIC SURGEON.
B. Depreitere.

Given the vulnerable nature of the spinal cord, processes having their origin anterior to the spinal cord and exert compression on it, are – in principle and apart from some exceptions - best approached anteriorly. For the thoracic spine, the anterior transsternal approach to T1-T4 and the lateral approach to T5-T12, are the expert area of the thoracic surgeon. The author has performed several decompressive surgeries for disc herniations and spinal metastases causing myelopathy or radiculopathy in close collaboration with the thoracic surgery colleagues. For the mid- and lower thoracic spine both thoracotomy and thoracoscopy approaches were used. Thoracoscopy cases were done in prone position, yielding the advantage of a more ergonomic drilling posture and clearance of washing fluids away from the spine.

It is the author’s opinion that collaboration with thoracic surgeons is highly recommended in terms of optimal approach and exposure, and of avoidance, early recognition and management of complications related to the access to the thoracic cage.
74. — THE POLYTRAUMATIZED PATIENT: WHEN TO CALL THE THORACIC SURGEON?
F. Pons, J. P. Arigon, B. de la Villeon, H. Abdourhamane.
Percy Military Hospital, Clamart, France.

The objective is to try to determine whether a general or trauma surgeon should call on a thoracic surgeon when dealing with a trauma patient.

Our method consists in defining the skills required for a trauma surgeon facing a chest trauma or a polytrauma as well as when referring to a thoracic surgeon or transferring the patient is appropriate.

The training of a general or trauma surgeon is very different according to the countries. The current trend is hyper-specialization. However, a trauma surgeon should be polyvalent. The context is also important. How far is the thoracic surgeon (same hospital, other hospital)? What are the duration and the conditions for an evacuation to another hospital? Evacuation is impossible in an unstable patient. Every trauma surgeon should be able to perform laparotomy and/or thoracotomy and to apply damage control principles. A thoracic surgeon should be involved only if immediately available. In a patient with suspected heart wound (even stable) evacuation is not possible due to the high risk of death during evacuation. The trauma surgeon must be able to perform a pericardial window and/or a sternotomy or thoracotomy. A patient suffering from aortic arch rupture must be evacuated to another facility (with possibility of endovascular prosthesis or bypass).

In a stable patient the indication for thoracic surgery relies on chest X-ray, chest tube and CT-scan. A general or trauma surgeon is able to repair some injuries like diaphragmatic injuries or to evacuate a hemothorax. However, other procedures like the repair of tracheobronchial injuries, thoracoscopy (retained hemothorax, air leakage, diagnosis of diaphragmatic injury etc...) have to be performed, if possible, by a thoracic surgeon.

A trauma or general surgeon must be able to perform emergency thoracotomy and laparotomy. If not, a thoracic surgeon must be on duty. In a stable patient, and if possible, thoracic procedures have to be performed by a thoracic surgeon.

75. — EXTENDED THORACIC SURGERY: WHEN TO CALL THE CARDIAC SURGEON.
A. Poncelet.
Cliniques Universitaires St. Luc, Louvain-en-Woluwe, Belgium.

Despite their final individualized specificities, thoracic and cardiac surgeons share a common surgical training path in many countries over the world. The close, intertwining, relationships between the two organs, both in term of anatomy and patho-physiology is one likely explanation besides historical factors. With the extraordinary technical developments that the cardiac surgical field has been witnessing during the last three decades, together with the epidemiological outgrowth of cardiovascular pathologies, a partial cleavage took place between the two sub-specialties. This cleavage was being strengthened by the parallel increase in the requirements of both scientific knowledge and multidisciplinary commitments in the growing field of thoracic oncology. Undoubtedly, there are still specific areas where either a dual competence or a close relationship between both subspecialties can improve patient’s care management. Among others, “locally advanced” either non small cell lung carcinoma or solitary metastatic disease, combined coronary disease and NSCLC, or finally high-velocity blunt trauma.

Case presentations and/or literature data for those individual topics are presented and will hopefully stimulate discussion.
76. — Iliac Aneurysm by Laparoscopic Approach.
A. Nguyen, L. Amond, P. Remy, C. D’Hont, H. Massin.
C.H. St Joseph, Charleroi, Belgium.

Laparoscopic surgery has been proposed for AAA treatment since 1998.
In our centre, laparoscopic surgery (LS) is used for treatment of aortoiliac occlusive disease and for selected cases of infrarenal aortic aneurysms.
A case of a 74 year-old man presenting an aneurysm of the left common iliac artery (37 mm diameter) is reported.
The endovascular approach has been recused because of the conformity and sinuosity of the aortoiliac branch.
The external iliac artery was undemand of any stenotic lesion.
He underwent an aortobifemoral grafting by laparoscopic approach with a good outcome.
The postoperative period was uneventful.
In his 30-day follow-up, the Doppler echography control showed good result, and there was no delayed complication.
A review of the literature has been done and the different possibilities of iliac aneurysm treatment are discussed.
The LS technique is safe in selected cases and can be considered as a minimally invasive treatment for left iliac artery aneurysms.

77. — More Than 2 Year Occluded Superficial Femoral Artery: Endovascular Approach?
S. Depuydt, J. De Letter.
A.Z. St Jan Brugge, Belgium.

A 61-year-old patient on hemodialysis presented with ischemic rest pain of the right leg after explantation of an infected above knee femoropopliteal bypass three months earlier.
Bypass grafting of a Dacron 7 mm graft was performed 2 years before explantation, indication was an ischemic ulcer at the right foot.
Clinical examination reveals truncal obesity, extensive scar tissue, especially at the groin and an ankle-brachial index of 0.55.
CT angiography shows a very diseased superficial femoral artery (SFA) with high-graded stenoses starting at the orifice, an occlusion mid-femoral with reinjection at Hunter’s canal. The popliteal artery is open with run-off in the peroneal artery alone.
Different treatment strategies are discussed, as will the final treatment.
The case of a 30-year-old pregnant (32 weeks) woman, genetically diagnosed with an Ehlers-Danlos type IV syndrome one year earlier, presented to the emergency obstetrical room with a right iliac fossa painful syndrome associated with severe anemia and lower limbs petechias: angio-IRM showed a retroperitoneal and peri-renal hematoma from a dissected false aneurysm of the right renal artery. Facing secondary hemodynamic instability and bleeding, a caesarean procedure was carried out associated with an endovascular urgent procedure: placement of a covered stent, with good outcome. Eighteen months later, a left lumbar pain led to an angio CTscan showing this time a dissected pre-ruptured false aneurysm of the left renal artery: an endovascular procedure was chosen with deployment of a non-covered stent. After 24 hours of intensive surveillance, a hypovolemic shock required a radical option: embolisation of the left renal artery. At the end of the procedure, a sudden worsening of the vital parameters induced a new angiography and deployment of a covered stent for a dissected external left iliac artery. She then presented a huge paucisymptomatic false aneurysm of the left common femoral artery, treated after 4 months of follow-up, by surgical endo-aneurysmal plication. Furthermore, a right common femoral artery false aneurysm with an arteriovenous fistula is currently being managed.

The aim of this article is to assess the different options between conservative medical treatment and operative/endovascular procedures confronted with dreadful polyvascular situations as encountered in Ehlers-Danlos type IV.

Thrombolysis for iliofemoral deep vein thrombosis remains controversial. Actually, several reports provide evidence that early endovascular intervention can reduce the incidence of post-thrombotic syndrome.

Beginning of 2009, a 44-year-old woman was admitted. Twenty years earlier, she had already a right-sided deep vein thrombosis. A few days before, she started with LMW heparin on clinical grounds (suspicion of a thromboflebitis of the saphenous vein). A duplex ultrasound diagnosed a deep vein thrombosis, starting at the level of the calf veins, and extending to the common iliac vein.

A temporary caval filter (Recovery G2, Bard) was placed; catheter-directed thrombolysis was initiated via the popliteal vein (4 F sheath, straight catheter with side holes). Urokinase (Actosolv, Eumedica) was successfully administered. On control phlebography, the deep vein thrombosis substantially diminished. The external and common iliac veins were stented (10*80 Astron, Biotronik, and 14*120 Luminexx, Bard) because of residual thrombus/stenosis. The angiographic and clinical result was good.

One week later (another Friday), her daughter was admitted, also with a left-sided iliofemoral deep vein thrombosis (left common femoral and external iliac vein) with associated thromboflebitis of the greater saphenous vein. Catheter-directed thrombolysis was initiated via a catheter in the greater saphenous vein. The external iliac vein was additionally stented (10*80 Complete SE, Medtronik) under protection of a temporary caval filter ( Günther Tulip, Cook). The angiographic and clinical result was good. Lab tests confirmed an underlying hereditary thrombophilia. Both were placed on oral anticoagulants.

The conclusion is that catheter-directed thrombolysis is feasible, with good short term results.
81. — STENTING THE AORTIC BIFURCATION : SELF-EXPANDING STENT ? BALLOON-EXPANDABLE STENT ? PROBABLY BOTH ...
J. Callaert, M. Bosiers, K. Deloose.
St. Blasius, Dendermonde.

The case of a 78-year-old female patient with complaints of left-sided gluteal claudication is reported. Clinical examination and duplex findings were suggesting left iliac disease and severe stenosis of the left common femoral artery (CFA). She was admitted for angiographic evaluation from the right groin which confirmed a 98% calcified stenosis at the ostium of the left common iliac artery (CIA) and a 70% stenosis of the left CFA.

Via this contralateral approach, both lesions were passed with a 0.035” GlideWire (Terumo). Firstly, the femoral stenosis was successfully dilated with a 5/40 Fox balloon (Abbott Vascular). Secondly, it was attempted to stent the ostial stenosis of the CIA with a 8/60 Absolute pro stent (Abbott Vascular). Halfway the deployment, the stent delivery system broke between the markers at the aortic bifurcation and further deployment was impossible.

It was attempted to push out the remaining shaft from the left side with a Berenstein catheter (Cordis). This was unfortunately unsuccessful and the partially deployed stent was now lying over the bifurcation. Finally, 2 0.035” GlideWires were placed from the groin into the aorta, through the struts of the stent. Protected stenting of the aortic bifurcation with two 7/80 Dynamic (Biotronik) balloon-expandable stents, was performed to open, crush and fix the self-expanding stent. Final angiographic control showed a good flow over the aortic bifurcation with no residual stenoses. Pressure measurements in both groins were equal. The next day, the patient could be discharged from the hospital and to date, the patient has no complaints of gluteal claudication.

82. — ENDOLUMINAL AND SURGICAL EXCLUSION OF MULTIPLE ANASTOMOTIC PSEUDOANEURYSMS IN A SINGLE PATIENT.
B. Moors, R. Vossaert, M. Martens.
AZ S Elisabeth, Zottegem, Belgium.

Pseudoaneurysms result from a variety of mechanisms, including infection, trauma and surgical procedures. All have in common the disruption of arterial continuity with extravasation of blood into surrounding tissues. This process ultimately results in the formation of a fibrous tissue capsule that progressively enlarges. A case of treatment of multiple pseudoaneurysms in the same patient in a single operation by means of endoluminal and surgical exclusion is presented.

An 82-year-old man presented with a symptomatic anastomotic pseudoaneurysm of 47 mm of diameter on the suprapopliteal anastomosis of an aortobifemoral Dacron bypass graft with unilateral extension to the proximal popliteal artery. He was found to have a second large, asymptomatic anastomotic pseudoaneurysm of 74 mm of diameter on the aortic anastomosis of his aortobifemoral bypass, and a third anastomotic pseudoaneurysm of 26 mm of diameter on the contralateral common femoral anastomosis. For reasons of poor general condition, he was treated with endovascular exclusion of the popliteal and aortic pseudoaneurysm. The pseudoaneurysm on the common femoral anastomosis was managed surgically, while creating an access site to the aorta.

Femoral pseudoaneurysms are by far the most common type of pseudoaneurysm and account for more than 75% of all clinically important lesions. Aortic anastomotic pseudoaneurysms are rare, complicating only about 2% to 10% of all aortic operations and an anastomotic pseudoaneurysm on the distal anastomosis of a suprapopliteal bypass graft is most exceptional. With the finding of an anastomotic pseudoaneurysm, neither symptomatic nor asymptomatic, it is important to evaluate all other possible sites of pseudoaneurysm formation. Endovascular treatment is often feasible with current modalities and is advantageous, especially for the difficulty in reoperative aortic and popliteal surgery.
84. — ENDOVASCULAR EXCLUSION OF A CHRONIC CONTAINED RUPTURE OF AN ABDOMINAL AORTIC ANEURYSM.
A.Z. St. Maarten, Duffel, Belgium.

The case of a 69-year-old white male presenting critical ischemia to the left lower extremity is reported. CT scan showed, besides occlusion of both superficial femoral arteries, a chronic contained rupture of an abdominal aortic aneurysm. The aneurysm was excluded with a stent graft placed through a femoral approach in a semi-urgent procedure. CT scans at 1, 3 and 6 months demonstrated continued exclusion of the aneurysm. Chronic ruptures are a rare but important subset of ruptured abdominal aortic aneurysms. CT scan with contrast enhancement is the golden standard diagnosing technique. Treatment consists of surgical intervention with endovascular repair being increasingly used as an alternative to an open surgical approach.

85. — WHEN THE DOTS ARE NO LONGER CONNECTED!

The best procedure to warrant a patient a promising future is the procedure that takes into account not only the present status but also the history. This golden consideration was rediscovered as a result of a case of colon ischemia post emergency abdominal aortic aneurysm (AAA) repair.
A 76-year-old man came to the emergency with rupture of a known AAA. He was treated with an aorto-ilio-femoral graft. He was extubated on the first postoperative day but due to cardio-respiratory and renal failure he was reintubated on day 4. A colonoscopy, performed because of elevated lactate levels, suggested colon ischemia. Since lactate and inflammatory parameters improved without further clinical signs of colon ischemia, he was treated conservatively with IV antibiotics. He was extubated on day 12. On day 14, he developed an acute abdomen and sepsis. CT scan showed necrosis and perforation of the left colon. An urgent laparotomy showed massive peritonitis with necrosis of the rectosigmoid. A resection was performed but the patient collapsed on arrival at the ICU due to dehiscence of the aortic graft. The question was raised whether the colon surgery he underwent 25 years ago was relevant.

The incidence of colon ischemia after open aneurysm repair of the infrarenal aorta varies between 3% and 35%. Ischemic colitis has been linked to preoperative shock, intra-operative blood loss or low cardiac output. The question whether or not to reimplant the inferior mesenteric artery remains unclear. And what to do when the arcade of Riolan is interrupted or the inferior mesenteric artery (IMA) is chronically occluded.

Based on the existing literature, a decision tree was developed about when and how to preserve the IMA and internal iliac arteries taking into account the medical condition of the patient, the vascular status and the surgical history.
86. — PERSISTENT SCIATIC ARTERY ANEURYSM: CASE REPORT.

A 55-year-old woman was sent to the emergency room by her general physician with sub-acute right lower limb ischemia. She reported a pulsating sensation in her right buttock. The angiography showed a persistent sciatic artery bearing a proximal aneurysm and embolic material in the arterial trunks of the leg. The patient was treated by venous graft femoropopliteal bypass with an end-to-end distal anastomosis. Exclusion of the aneurysm was done by ligation of the hypogastric artery. A lumbar sympathectomy was also performed. The perfusion of the leg was restored and the aneurysm was proven avascularised. The postoperative course was uneventful.

87. — PERIAORTITIS FIVE YEARS AFTER INSERTION OF A STENT GRAFT FOR AN INFRARENAL ANEURYSM: A CASE REPORT OF A RARE COMPLICATION.
A.Z. Groeninge, Kortrijk, Belgium.

A 77-year-old man with an infrarenal aneurysm was treated by insertion of a bifurcated stent graft (Talent, Medtronic) in 2003 at the AZ Groeninge Hospital, Kortrijk. There were no postoperative complications and the follow-up was uneventful. After 5 years, he presented with abdominal discomfort, anorexia and subfebrillitas. Biochemical investigation revealed an increased erythrocyte sedimentation rate, with normal leucocytosis and a slightly decreased renal function. In comparison to previous CT scans, a new CT of the abdomen showed thickening of the aneurysmal wall. Involvement of the ureters was not observed. A PET scan confirmed the diagnosis of an inflammatory aneurysm. Treatment with IV cortisone resulted in a spectacular regression of symptoms and normalisation of his biochemistry and radiology. Only four cases with the development of periaortitis after stent graft placement have been described in literature. All patients were treated with cortisone and/or Tamoxifen with fully regression of the inflammation. The mechanisms of development of periaortitis are not yet completely understood. 3 to 10% of the aortic aneurysms are inflammatory, with a higher incidence for men. The treatment of choice for inflammatory aneurysms (IAAA) is surgery, with a regression of the periaortitis in 53% of the cases in open surgery and much less for EVAR. CT imaging reveals an induction of periaortitis in 18% of the patients who have been treated with EVAR, though without any clinical significance. In some cases, like in the patient, there is a significant development of periaortitis for which drug therapy is necessary to control the disease.
88. — AN UNUSUAL FORM OF RUPTURED ABDOMINAL AORTIC ANEURYSM.
C.H.U. Sart Tilman, Liège, Belgium.

A 94-year-old man underwent successful aneurysm (61 mm) exclusion with a Zenith (Cook) stent graft in 2002. On routine evaluation with computed tomography, everything was correct during a 6-year follow-up. The aneurysm had shrunken to 50 mm. He came to the emergency room in 2008 with abdominal pain, nausea, hematemesis. The patient was circulatory stable and a CT scan was performed on a suspicion of aorto-digestive fistula. The aneurysm had enlarged to 75 mm, the stent graft was in a “correct” position but a retroperitoneal collection above the right psoas was found. The patient underwent emergency surgical AAA repair with removal of the stent graft. Macroscopic examination showed suture breakage between the uncovered stent and the covered segment of the graft body.

This late complication of the Zenith endograft “first generation” underscores the need for life-long frequent imaging surveillance in all patients undergoing endoluminal AAA repair. Five analogous cases have been reported in literature. In the new design of the Zenith Flex endovascular graft, the number of sutures of the suprarenal stent has been doubled.

90. — DUCTOSCOPY AND DUCTOSCOPIC BIOPSY: NEW PERSPECTIVE FOR EVALUATION OF INTRADUCTAL BREAST NEOPLASIA.
M. Hünerbein.
Robert Rössle Hospital, Berlin, Germany.

Ductoscopy is an emerging technology which may improve evaluation of intraductal neoplasia in women with nipple discharge having to undergo surgery for breast cancer. We developed a new rigid instrument for breast duct endoscopy and intraductal biopsy of pathologic lesions.

Ductoscopy was performed in more than 100 patients with a preoperative diagnosis of breast or pathologic nipple discharge. For all examinations, a rigid gradient index microendoscope (ø 0,7 mm) was used in combination with a specially developed needle for intraductal vacuum assisted biopsy.

Ductoscopy can identify most lesions in patients with nipple discharge and may be used for guidance of ductal resection. In patients with breast cancer, ductoscopy holds promise to improve the detection of additional intraductal components, especially in women with extensive disease. Intraductal biopsy represents a new minimally invasive technique for tissue sampling of intraductal neoplasia. Clearly, ductoscopy with ductoscopic biopsy is not suitable for screening early breast cancer because of the invasive nature of the procedure and the inability to examine all ducts. Further prospective studies will be required to clarify the exact role of ductoscopy with ductoscopic biopsy for the evaluation of intraductal neoplasia.
92.— SURGICAL DECISION MAKING IN WOMEN PRESENTING WITH NIPPLE DISCHARGE.
A. Smeets, M.-R. Christiaens.
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In a multidisciplinary breast unit about 5% of patients present nipple discharge as single complaint. A good history and clinical examination are essential to distinct benign (1/3) from pathological nipple discharge (2/3). Pathological nipple discharge is defined as spontaneous, persistent, unilateral discharge from a single duct during a non-lactational period and is more common in patients over 50 years. The nature of the secretion can be bloody, serous, serosanguinous or watery but it is not indicative for making the differential diagnosis but cancer is more frequently associated with bloody, serosanguinous and serous secretions. On clinical examination specific attention has to be paid to skin changes that can mimic nipple discharge (i.e. Paget’s disease). Gentle pressure on the nipple can express a drop of nipple discharge to identify the orifice of the discharging duct. In the presence of a palpable abnormality this should be assessed as usual. All women with nipple discharge should undergo a mammogram and an ultrasound of the breasts irrespective of their age (only oblique view if < 30 years), to assess the subareolar area for microcalcifications or other abnormalities. When an intraductal lesion is suspected on ultrasound, a fine needle aspiration cytology is preferred over a core needle biopsy. A smear cytology has to be performed (cervix brush, CytoRich Red). Despite its low sensitivity (30%) in the evaluation of underlying malignancy, it has a high specificity (80%) for cancer thus can add important information for the operation planning. In patients with pathological nipple discharge, imaging has to be completed with a galactography to localize intraductal lesions and to identify patients with peripheral (20%) or multiple lesions (30%). As a galactography has a high sensitivity (80%) for detecting cancer but a low specificity (5%), but even in patients with a negative galactography a surgical resection of the secreting duct is recommended. Microdochectomy is the conventional treatment for patients with pathological nipple discharge and provided the correct origin of the discharge is identified it can be both diagnostic and therapeutic, alleviating a persistent and sometimes troublesome symptom without major interference with the breast or nipple. It is less invasive than the radical subareolar duct excision with lower morbidity. Microdochectomy may also be superior to major duct excision as a diagnostic procedure as peripheral lesions are distal to the limits of major duct excision but are usually excised with galactographic guided microdochectomy. In a retrospective study, the group showed that a surgical resection is indicated in all patients presenting with pathological nipple discharge. Ninety consecutive patients presenting unilateral single duct nipple discharge underwent a single duct resection. Histological examination did show a malignant lesion in 20% of these patients (50% DCIS, 50% invasive cancer). Without surgery only 31% of these malignancies would have been detected! Other authors have reported similar findings. A video of our technique of a microdochectomy will be presented.

References
The multi-disciplinary approach, including surgery, chemotherapy and radiation therapy has become the standard treatment for most cancer patients. Neo-adjuvant chemotherapy followed by surgery is now an accepted practice, since the only curative treatment option for these patients is surgery. The advantages of preoperative chemotherapy include the treatment of undetected distant microscopic metastasis, downsizing the primary tumour and/or metastases, identifying patients with aggressive disease and assessing the chemotherapeutic agents are slowly being supplemented by this new generation of drugs. This molecular approach holds promise of more effective therapies with markedly fewer side effects. With these new agents having firmly established themselves in the treatment of different cancers, there is a growing use in the perioperative setting. Two major topics concerning treatment with biologicals that could have an impact on surgery are discussed. Firstly, the phenomenon of flare-up as it was seen with tyrosine kinase inhibitors will be examined. Finally, the effects of inhibitors of angiogenesis on surgery will be considered.

Since the publication by Griffiths in 1978 the standard treatment of advanced ovarian cancer has become “debulking” or “cytoreductive” surgery followed by cisplatin based chemotherapy. Although surgery never has been subjected to a randomized trial, multiple retrospective studies have demonstrated a correlation between survival and diameter of the largest residual mass at the end of surgery. Other prognostic factors are age, performance status, histology and metastatic tumour load. The main topics of discussion in the treatment of advanced ovarian cancer remained: what is an optimal debulking and what is the optimal sequence of surgery and chemotherapy. In an editorial in 1980, titled ‘Debulking’, Moore stated that great harm could be wrought unless all macroscopic disease could be excised. Over the years the definition of optimal debulking has evolved from largest residual smaller than 2 cm to smaller than 1 cm to no macroscopic residual. But even in the most experienced and motivated hands this ideal can only be reached in about 40% of the patients. The main reason for this failure of surgery is the very large number of rather small tumoural deposits on the peritoneal surface and especially on the gastrointestinal tract where peritonectomy is not possible. No good understanding of surgical cytoreduction is possible without an estimation of tumour load in terms of tumour cells. The tumour load in FIGO III can vary between 104 and 3.1012 cells. We should be aware that when the sum of all small residual tumour deposits attains 1 gram, the residual tumour load equals at least 109 cells. When additional surgical effort in the abdominal cavity and/or in the retroperitoneal area leads to less than one log order diminution in tumour cells, this effort will not result in a significant increase in survival but will result in additional surgical morbidity, especially in the presence of ascites. Recently the EORTC has performed a randomized study comparing upfront debulking with upfront chemotherapy followed by interval debulking in FIGO IIIC-FIGO IV patients and no difference in survival was found. Therefore patients can be selected for primary cytoreduction if tumour load is rather small and optimal cytoreduction (= no residual tumour) can be obtained in a not too complicated operation. The patients with a larger tumour load can be treated by chemotherapy first and have safer surgery after 3 or 6 cycles. In experienced hands, this selection seems to be possible by laparoscopic exploration. The rectosigmoid should be examined radiologically or endoscopically in...
order to detect obstruction and invasion of the mucosa. In case of tumour recurrence after optimal initial treatment, which is still the case in the majority of patients, a second cytoreduction will only be possible and useful in the rather rare cases of localized recurrence after a rather long interval. If the small intestine occupies only a small area in the central abdomen on CT scan, every surgical intervention is a priori useless.

99. — **DEONTOLOGICAL ASPECTS OF MEDICINE, MORE SPECIFIC FOR THE SURGEON IN A CHANGED SOCIAL ENVIRONMENT.**

M. Deneyer, E. De Groot.

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Since the law concerning patients’ rights came into force (B.S. 26-9-2002), the medical practice has evolved from a pure paternalistic given to a concept of dialogue and involvement respecting the right to self-determination of the patient. Seven years after its promulgation, one sees on the shop floor that this law is little known by doctors and patients and that no evident implementation has been realised in the medical practice. When information is supplied, the explanation of the price tag of the medical intervention and the proposal of alternative therapies are inadequate. The fact that the existence of the ombud’s function is insufficiently known by the patient, and the reluctance to enter into a confrontation with the patient is thought to reduce the chance to smooth folds out by mediation. Due to this, many complaints arrive at the wrong level and in an exaggerated proportion, which does not respect the original dimension any more. One can not open a medical journal or look at a hospital website without finding the adage “the patient at the centre”. This is only possible if there exist sound agreements between the physicians at the department level (under the responsibility of the head of department), between the different departments (assembly of head of departments, medical board and head physician level). Many problems concerning quality and continuity of care would not occur if tasks would be previously clearly delimited. Often, doctors shirk administration and department meetings. Doesn’t a good surgeon belong in “his surgery quarters” rather than in a coffee party?

The workload became heavier and continues increasing alarmingly. The number of physicians, in terms of full-time equivalences, has attained a critical threshold, which is the reason why the same care cannot be further provided. The quota restrictions limit the inflow. The outflow is no longer only determined by natural drain off, but by new phenomena like emigration to a foreign country or the choice of an office-based setting.

Concerning the “office-based medicine”, there are institutions that are doing very good work and this to large satisfaction of the patient whose choice is often founded on the discreet completion of the intervention.
On the other hand, the lack of inspection by the medical board or by the head physician and the fact of not being controlled by the accreditation committee are factors which make some institutions vulnerable for mercantile minds, making excesses like improper exercise of medicine and trifle with the actual quality standards.

The Belgian Society of Surgery has to reflect on the above mentioned topics. An imperative duty is that they co-negotiate measures which improve the quality and the continuity of care.

101. — “THE SURGEON FACING NEW PROCEDURES AND EMERGING TECHNOLOGIES. HOW DOES HE RESPOND TO INNOVATION?”

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When a market place is faced with the opportunity to switch to a new product or service that requires the end-users to dramatically change their way of doing, members have been said to segregate according to their level of risk aversion. When the market place is surgery, members are surgeons and the recipients of their way of doing are patients, the response to innovation seems to be influenced at least by other factors, even perhaps more decisive than professionals’ psychological predisposition to risk. These factors include from the expected gain for patients in terms of hard endpoints, invasiveness, recovery time, incidence on quality of life and so on, through the duration and difficulties associated with the collective and individual learning process, the same sociological evolution of society and the influence of technological companies, to the expected gain for surgeons in terms of prestige, scientific merits and other opportunities for institutional and personal growing. On the basis of this theoretical frame, a critical look to the evolution of vascular surgery over the last two decades seems to reflect that the previous factors may have increasingly influenced progress as they have been mentioned. Without doubt, progress does not seem to be clearly driven by clinical needs but by an amalgam of factors that escape the control, but not the responsibility, of surgeons seen as a professional corps. As both end-users and first-promoters of progress surgeons should embrace, on the basis of the privilege granted by society of self-regulation, a rigorous critical thinking whenever a clear gain for patients seems to be at stake. Otherwise they can be at risk of losing self-regulation in the hands of other people perhaps less implicated in the day after day trench of clinical practice.