CANADIAN ASSOCIATION of
PAEDIATRIC SURGEONS

36th

Annual Meeting

WINNIPEG
September 30 - October 3, 2004
Thirty-sixth Annual Meeting

CANADIAN ASSOCIATION of
PAEDIATRIC SURGEONS

September 30 - October 3, 2004

Fort Garry Hotel
Winnipeg (Manitoba)
CANADA
This event is approved as an accredited group learning activity as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.
SCIENTIFIC AND SOCIAL PROGRAM

Thursday, September 30, 2004

10:00 - 17:00  Meeting of CAPS Council (Executive) Salon A
14:00          Registration
19:00          Welcoming Reception – Fort Garry Hotel, The Club

Friday, October 1, 2004

07:00 - 12:00  Registration/Exhibits
07:00 - 07:30  Continental Breakfast
07:30 - 07:40  President’s Welcome – Concert Hall Ballroom
07:40 - 09:20  Scientific Session ONE
09:20 - 09:40  Refreshment Break
09:40 - 11:00  Scientific Session TWO
11:00 - 11:15  Refreshment Break
11:15 - 12:15  Fred Mac Leod / JPS Lecture, Dr. Keith Georgeson
12:15 - 13:30  CAPSNET meeting/Lunch – Broadway Room
18:30          Presidential Reception / Banquet – Crystal Ballroom

Saturday, October 2, 2004

06:00 - 07:30  Specialty Committee Pediatric General Surgery Meeting
06:00 - 07:30  Publications Committee Meeting
07:00 - 12:00  Registration/Exhibits
07:00 - 07:30  Continental Breakfast
07:30 - 08:50  Scientific Session THREE
08:50 - 09:10  Refreshment Break
09:10 - 10:46  Scientific Session FOUR
10:46 - 11:00  Break
11:00 - 11:30  History of Louis Riel – Dr. Frank Guttman
               CAPS sponsored travel report
11:30 - 12:30  “2 minutes / 2 slides”
12:30 - 14:30  CAPS Members Business Meeting (Luncheon) – Broadway Room

Sunday, October 3, 2004

07:00 - 09:00  Registration/Exhibits
07:00 - 07:30  Continental Breakfast
07:30 - 08:50  Scientific Session FIVE
08:50 - 09:10  Refreshment Break
09:10 - 10:06  Scientific Session SIX
10:06 - 11:06  Scientific Session SEVEN
11:06 - 11:20  Resident prizes for excellence in clinical and research presentations and President’s Closing Remarks
PRESIDENT’S WELCOME

Welcome to Winnipeg,

The 36th annual CAPS meeting this year carries a very special symbolic meaning: the prevail of friendship and intelligence over barbarism. This meeting is held in place of the CAPS 2001 meeting that was scheduled for September 14th, 2001 and was cancelled because of the well known, sad events.

Because of its relatively small size, CAPS meeting will be, as always, an excellent opportunity to renew friendships and exchange ideas in a most pleasant atmosphere.

We are grateful to Dr Keith Georgeson who has accepted to be this year’s CAPS guest lecturer. Not only is Dr Georgeson a well known authority in the field of minimally invasive surgery, but he is also well known for his kindness and the excellent quality of his judgement. I am convinced that the McLeod/JPS lecture that he will be giving will bring us the latest update on the possibilities as well as the limits of this approach.

Jane and Ray Postuma , our local hosts have prepared an excellent social program that will be the right complement for the great scientific program prepared by Dr Ken Shaw and his program committee.

Very special thanks to our faithful secretary-treasurer, Dr Peter Fitzgerald, who has been working very hard to keep the CAPS spirit and watch over our association’s interests.

I wish us all a great meeting.

Salam Yazbeck M.D.
President
Canadian Association of Paediatric Surgeons
ABOUT THE CANADIAN ASSOCIATION OF
PEDIATRIC SURGEONS

The Canadian Association of Pediatric Surgeons was granted its charter in 1967. Its goal
is to improve the surgical care of infants and children in Canada. Its areas of interest
include all aspects of general and thoracic pediatric surgery with recognition of its unique
responsibility to infants born with congenital anomalies and children with malignancies.
While its responsibility to pediatric trauma is not unique, it assumes a pivotal role in
issues related to pediatric trauma.

The Canadian Association of Pediatric Surgeons presents an opportunity, particularly
through its annual meetings, to share information concerning diagnosis, treatment, and
research with regards to its areas of interest. In addition, it assumes responsibility to
participate in the education of not only its members, but other members of the community
interested in and involved in related aspects of pediatric care.

EDUCATION FUND: To help achieve its responsibility to education for issues related
to pediatric surgery, the Association has an education fund. This fund was established
and continues to exist through the generosity of donations from individuals and groups,
both medical and non-medical, interested in the surgical care of children. The Association
solicits annual donations to the fund to maintain an adequate working capital to support
the annual education programming endorsed by the CAPS membership. This fund is
registered with the federal government and all contributions are fully tax-deductible. It is
audited annually.

Donations may be sent to:

Peter Fitzgerald, M.D.
CAPS Secretary-Treasurer
McMaster Children's Hospital
1200 Main St. W., Rm 4E2
Hamilton, Ontario
L8N 3Z5
Telephone (905) 521-2100 ext 75231
Fax (905) 521-9992
E-mail: fitzger@mcmaster.ca
PRESIDENTS

1967-1973 Harvey Beardmore Montreal
1973-1975 Colin Ferguson* Winnipeg
1975-1977 Jim Simpson* Toronto
1977-1979 Sam Kling Edmonton
1979-1981 Pierre-Paul Collin Montreal
1981-1983 Barry Shandling Toronto
1983-1985 Gordon Cameron Hamilton
1985-1987 Stanley Mercer Ottawa
1987-1989 Alex Gillis Halifax
1991-1993 Sigmund H. Ein Toronto
1993-1995 Angus Juckes Regina
1995-1997 Jean G. Desjardins Montreal
1997-1999 David P. Girvan London
1999-2002 Ray Postuma Winnipeg
2002-2003 Mike Giacomantonio Montreal
2003- Salam Yazbeck Montreal

* indicates deceased

SECRETARY-TREASURERS

1967-1974 Barry Shandling Toronto
1974-1978 Gordon Cameron Hamilton
1978-1983 Frank M. Guttman Montreal
1989-1995 Ray Postuma Winnipeg
1995-2002 Salam Yazbeck Montreal
2002- Peter G. Fitzgerald Hamilton
FOUNDING MEMBERS

ALLEN                Michael
ASHMORE              Phillip
BEARMORE             Harvey
CAMERON              Gordon
COLLIN               Pierre-Paul
DESHARDINS           Jean G.
DUCHARME             Jacques C.
DUVAL*               Frederick
FALLIS               James
FERGUSON*            Colin
GILLIS               Alex
GUTTMAN              Frank M.
JUCEKES              Angus
KARN*                Gordon
KENNEDY              Richard
KLIMAN               Murray
KLING                Samuel
MARSHALL             Donald
MARSHALL*            Russell
MERCER              Stanley
MURPHY               David
OWEN*               Herbert
SHANDLING            Barry
SHRAVOVITCH*         Israël
SIMPSON*             James
STEPHENS*            Clinton
TURCOT*              Jacques

* indicates deceased

1st ANNUAL MEETING was held January 22, 1969 in VANCOUVER
THE COATS OF ARMS
OF THE
CANADIAN ASSOCIATION OF PAEDIATRIC SURGEONS

Heraldic Blazon

Per pale gules and purpure, dexter a scalpel erect entwined by a serpent, sinster a child standing, all argent.

Crest: On the three maple leaves slipped gules and blacked purpure, the date 1967.

Motto: “Je le pensay, Dieu le guarit”.

Description

The red and purple of the arms are also the colours of the Royal College of Physicians and Surgeons of Canada and represent the blood met in surgery - arterial and venous. The scalpel with the healing serpent of Aesculapius, and the figure of a well child combine to symbolize the practice of Paediatric Surgery.

The crest is the Canadian maple leaf and the founding date of the Association (1967).

The Motto is a quotation from Ambroise Pare, a father of modern surgery. The sixteenth-century French translates, “I treated him, God cured him”.

CAPS 2005
ANNUAL MEETING

Québec City
September 22\textsuperscript{nd} – 25\textsuperscript{th}, 2005

PLAN TO JOIN US!
GUEST LECTURER

DR. KEITH GEORGESON

Surgeon-in-Chief, The Children's Hospital of Alabama
Joseph M. Farley Chair of Pediatric Surgery; Professor of Surgery,
University of Alabama School of Medicine
Director, Division of Pediatric Surgery
Director, Pediatric Surgery Residency

Dr. Georgeson graduated from Loma Linda University Medical Center in 1969. He completed his General Surgery Residency at the Loma Linda University Medical Center and his Pediatric Surgery Fellowship at the Children’s Hospital of Michigan.

Dr. Georgeson is a central figure in the field of Pediatric Minimal Access Surgery. He has authored, or co-authored, 96 peer reviewed papers, 6 book chapters, 1 book and has been on the editorial board of several journals. Dr. Georgeson has been the recipient of numerous prestigious awards.

Dr. Georgeson is a talented surgeon and a pioneer in the expanding field of Minimal Access Surgery.

The Canadian Association of Pediatric Surgeons is pleased to invite

DR. KEITH GEORGESON

to give the Fred MacLeod / JPS Annual Lecture.

The visit by Dr. Keith Georgeson is made possible with the financial support of Elsevier.
RESIDENTS’ PAPERS

The papers presented by Surgical Residents are adjudicated by a panel of members from the Publication Committee. There are two award categories: the best Clinical paper and the best Experimental paper. Selection will be made only from the Original Papers Category. Each award is $500.

WINNERS OF THE 2003 RESIDENT BEST PAPER AWARDS

BEST CLINICAL RESEARCH PAPER

Dr. P. J. Javid

Survival in congenital diaphragmatic hernia: The experience of the Canadian Neonatal Network
P.J. Javid, T. Jaksic, E.D. Skarsgard, S. Lee,
and the Canadian neonatal network
Children’s and Women’s Hospital of British Columbia,
University of British Columbia
Vancouver, British Columbia

Dr. MARIA DELORENZO
BEST BASIC SCIENCE RESEARCH PAPER

Dr. E. J. Parkinson

Moderate hypothermia attenuates hepatic apoptotic signalling following intestinal ischaemia-reperfusion
E.J. Parkinson, P. Townsend, A. Stephanou, S.
Eaton, D. Latchman, A. Pierro
Institute of Child Health
London, United Kingdom

CONTRATULATIONS DR. JAVID AND PARKINSON!

WINNERS OF THE 2003 RESIDENT BEST PAPER AWARDS
Seminars in Pediatric Surgery Prize

M. Beaunoyer

Bilateral Ovarian Torsion
M. Beaunoyer, J. Chapdelaine, S. Bouchard, A. Ouimet
Hopital Sainte-Justine, Montreal, Quebec

Journal of Pediatric Surgery Subscription Prize

M. McHoney

Laparoscopy blunts the postoperative metabolic response to surgery
M. McHoney, S. Eaton, D.P. Drake, E.M. Kiely, L. Spitz, A. Pierro
Institute of Child Health and Great Ormond Street Hospital for Children
London, UK
THE CANADIAN ASSOCIATION OF PAEDIATRIC SURGEONS WOULD LIKE TO ACKNOWLEDGE THE FINANCIAL SUPPORT OF THE FOLLOWING SPONSORS

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www.caps.ca
PROGRAM SCHEDULE
PROGRAMME DÉTAILLÉ

ABBREVIATIONS

O       original 8-minute paper
R       resident’s paper
C/T     4-minute case/technique report
O,R     Adjudicated
C/T     Not adjudicated
THURSDAY, SEPTEMBER 30, 2004

Fort Garry Hotel

10:00 - 17:00  Meeting of CAPS Council (Executive)
               Salon A

14:00          Registration

19:00          Welcoming Reception
               Fort Garry Hotel, The Club

For the duration of the conference there will be a CAPS Hospitality Suite. Please check the hotel lobby directory.
FRIDAY, OCTOBER 1, 2004

Fort Garry Hotel

07:00 - 12:00  Registration/Exhibits
               Concert Hall Ballroom

07:00 - 07:30  Continental Breakfast
               Concert Hall Ballroom

07:30 - 07:40  Welcome and Opening Ceremony
               President, Dr. Salam Yazbeck
               Concert Hall Ballroom

07:40 - 09:20  Scientific Session I
               Concert Hall Ballroom

09:20 - 09:40  Refreshment Break
               Concert Hall Ballroom

09:40 - 11:00  Scientific Session II
               Concert Hall Ballroom

11:00 - 11:15  Refreshment Break
               Concert Hall Ballroom

11:15 - 12:15  Fred Mac Leod / JPS Lecture
               Dr. Keith Georgeson
               Concert Hall Ballroom

18:30 - 22:00  Presidential Reception/Banquet
               Crystal Ballroom
SCIENTIFIC SESSION I
THORAX

1 7:40 OR  SPONTANEOUS POSTNATAL RESOLUTION OF CCAM
S.A. Butterworth, G.K. Blair
British Columbia Children’s Hospital, 4480 Oak Street,
Rm K0-110, Vancouver, BC V6H 3V4 CANADA

2 7:52 OR  CAN WE PREDICT THE FAILURE OF THORACOS Tomy TUBE DRAINAGE IN THE TREATMENT OF PEDIATRIC PARAPNEUMONIC COLLECTIONS?
M. Jamal, S.C. Recbye, M. Zamakhshary, E.D.
Skarsgard, G.K. Blair
British Columbia Children’s Hospital, 4480 Oak Street,
Rm K0-110, Vancouver, BC V6H 3V4 CANADA

3 8:04 OR  VIDEO-ASSISTED THORACIC SURGERY(VATS) FOR SPONTANEOUS PNEUMOTHORAX IN CHILDREN
S.A. Butterworth, G.K. Blair, J.G. LeBlanc, E.D. Skarsgard
British Columbia Children’s Hospital, 4480 Oak Street,
Rm K0-110, Vancouver, BC V6H 3V4 CANADA

4 8:16 OR  POSTNATAL PULMONARY DISTENSION FOR THE TREATMENT OF PULMONARY HYPOPLASIA: PILOT STUDY IN THE NEONATAL PIGLET MODEL
A. Blüttner, B. Piedboeuf*, H. Flageole, B. Meehan,
J-M. Laberge
Montreal Children’s Hospital, Montreal, QC, H3H 1P3
*Centre Hospitalier Universitaire de Québec, Sainte Foy, QC CANADA
5 8:28 OR  RECENT CHALLENGES IN THE MANAGEMENT OF CONGENITAL TRACHEAL STENOSIS: AN INDIVIDUALIZED APPROACH  
H. Holtby, Anesthesia, C. Calderone, J. Coles, Cardiac Surgery, P. Cox, D. Bohn, Critical Care, C V. Forte, Otolaryngology and Priscilla P.L. Chiu, P.C.W. Kim, General Surgery  
The Hospital for Sick Children, 555 University Ave, Toronto, ON, M5G 1X8 CANADA

6 8:40 OR  MIDTERM EVALUATION OF CARDIOPULMONARY EFFECT OF CLOSED REPAIR PECTUS EXCAVATUM  
Q.A. Bawazir, D.L. Sigal, J. Harder, M. Montgomery  
Alberta Children’s Hospital, 1820 Richmond Road, SW Calgary, AB, T2T 5C7 CANADA

7 8:52 CR  INTRAPERICARDIAL TERATOMA IN THE PERINATAL PERIOD  
S. MacKenzie, S. Loken, N. Kalia, J. Hardey, D. Sigal  
Alberta Children’s Hospital, 1820 Richmond Road SW Calgary, AB T2T 5C7 CANADA

8 9:04 O  MULTI-STAGED ESOPHAGEAL ELONGATION TECHNIQUE FOR LONG-GAP ESOPHAGEAL ATRESIA: EXPERIENCE WITH 7 CASES AT A SINGLE INSTITUTION  
S. Takamizawa, E. Nishijima, C. Tsugawa, T. Muraji, S. Satoh, Y. Tatekawa, K. Kimura  
Kobe Children’s Hospital 1-1-1, Takakuradai, Suma-ku, Kobe 654-0081 JAPAN

9:20 – 9:40  REFRESHMENT BREAK
SCIENTIFIC SESSION II
FOREGUT

9  9:40 OR  LAPAROSCOPIC OR OPEN FUNDOPLICATION FOR GASTRO-ESOPHAGEAL REFLUX? A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS.
M. Chowdhury, M. McHoney, A. Pierro
Institute of Child Health and Great Ormond Street
Hospital for Children, 30 Guilford Street, London
WC1N 1EH UNITED KINGDOM

10  9:52 OR  CLINICAL OUTCOME OF A BLIND RANDOMISED CONTROLLED TRIAL OF LAPAROSCOPIC VS OPEN NISSEÑ FUNDOPLICATION IN CHILDREN
M. McHoney, S. Eaton, R. Howard, DP Drake,
EM Kiely, J. Curry Spitz L. Pierro A
Institute of Child Health and Great Ormond Street
Hospital for Children, 30 Guilford Street, London
WC1N 1EH UNITED KINGDOM

11  10:04 OR  SURGERY FOR PEPTIC ULCER DISEASE IN CHILDREN IN THE POST-H2 BLOCKER ERA
M.J. Barnes, S.J. Kollenberge, M.L. Brandt, D.E.
Texas Children's Hospital, 6621 Fannin St., Houston,
TX 77030-2399 U.S.A.

12  10:16 OR  GASTRIC DIVISION FOR RECALCITRANT AEROPHAGIA
J. Ryckman, S. Murphy
Dupont Hospital for Children, 1600 Rockland Road,
Wilmington, Delaware 19899 USA
GASTRIC VOLVULUS IN CHILDREN: MYTH OR REALITY?
Q. Reinberg, A. Darani, M. Mendoza-Sagaon
Centre Hospitalier Universitaire Vaudois
CH-1011-Lausanne-CHUV, SWITZERLAND

BIP (BUTTON GASTROSTOMY INSERTED PERCUTAENOUSLY): A FAVORABLE ALTERNATIVE TO PEG FOR CHILDREN
J. Castilloux, P. Prasil, G. Roy, J. Péloquin, S. Cayer, L. Pelletier
Centre Hospitalier de l’Université de Laval, 2705 Laurier Boulevard, Sainte-Foy, QC G1V 4G2 CANADA

LAPAROSCOPIC VS PERCUTANEOUS ENDOSCOPIC GASTROSTOMY TUBE INSERTION: A NEW PEDIATRIC GOLD STANDARD?
M. Zamakhshary, M. Jamal, G.K. Blair, J.J. Murphy, E.M. Webber, B.D. Skarsgard
B.C. Children’s Hospital, 4480 Oak St., Vancouver, BC V6H 3V4 CANADA

11:00 – 11:15 BREAK
11:15 – 12:15 FRED MACLEOD/JPS LECTURE
SATURDAY, OCTOBER 2, 2004

Fort Garry Hotel

06:00 - 07:30  Specialty Committee in Pediatric General Surgery Meeting

06:00 - 07:30  Publications Committee Meeting

07:00 - 12:00  Registration/Exhibits
    Concert Hall Ballroom

07:00 - 07:30  Continental Breakfast
    Concert Hall Ballroom

07:30 - 08:50  Scientific Session III
    Concert Hall Ballroom

08:50 - 09:10  Refreshment Break
    Concert Hall Ballroom

09:10 - 10:46  Scientific Session IV
    Concert Hall Ballroom

10:46 - 11:00  Refreshment Break
    Concert Hall Ballroom

11:00 - 11:30  History of Louis Riel – Dr. Frank Guttman
    CAPS sponsored travel report
    Concert Hall Ballroom

11:30 - 12:30  “2 minutes / 2 slides”
    Concert Hall Ballroom

12:30 - 14:30  CAPS Members Business Meeting
    Broadway Room
SCIENTIFIC SESSION III
TUMOURS AND TRAUMA

16 7:30 OR MELANOMA IN CHILDREN AND THE USE OF SENTINEL LYMPH NODE BIOPSY
A. Butler*, T. Hui, J. Chapdelaine*, M. Beaunoyer*, H. Flageole, S. Bouchard*
*Hôpital Sainte-Justine, 3175 Côte-Ste-Catherine, Montreal, QC H3T 1C5, Montreal Children's Hospital, 2300 Tupper Street, Montreal, QC H3H 1P3 CANADA

17 7:42 OR 28-YEARS EXPERIENCE WITH NON WILM'S TUMORS
M. Beaunoyer, A. Bütter, J. Chapdelaine, D. Barreras, M. Lallier
Hôpital Sainte-Justine, 3175 Chemin Côte Ste-Catherine Montreal, QC H3T 1C5 CANADA

18 7:54 OR PROGNOSTIC VALUE OF POSITIVE GLUT-1 IMMUNOSTAINING IN LIVER VASCULAR TUMOURS OF INFANTS
Hospital Universitario La Paz, Pediatric Surgery Department and *Pathology Department, Paseo de la Castellana, no. 261 Madrid 28046 SPAIN

19 8:06 OR RELATIONSHIP BETWEEN SURGICAL VOLUME AND CLINICAL OUTCOME: SHOULD PEDIATRIC SURGEONS BE DOING PANCREATODUODENECTOMIES?
R. Dasgupta, P.C.W. Kim
Hospital for Sick Children, 555 University Ave, Toronto, ON M5G 1X8 CANADA
20  8:18  OR  DEFINING THE PROCESS OF CANCER DIAGNOSIS IN A CHILDREN'S HOSPITAL: OPPORTUNITIES FOR PRACTICE IMPROVEMENT. S.C. Reehye, J.F. Magee, G.K. Blair, P. Rogers, D. Jamieson, E.D. Skarsgard British Columbia Children's Hospital, 4480 Oak Street, Vancouver, BC V6H 3V4 CANADA

21  8:30  O  ACCIDENTS IN CHILDREN DO NOT HAPPEN AT RANDOM: PREDICTABLE TEMPORAL PATTERN OF INJURIES IN CHILDREN O. Reinberg, *A. Reinberg, *M. Mechkouri Centre Hospitalier Universitaire Vaudois, CH – 1011 – Lausanne – CHUV, SWITZERLAND *Chronobiology Unit, CNRS, Fondation A de Rothschild, Paris, FRANCE

22  8:42  OR  PSEUDOANEURYSM IN THE MANAGEMENT OF PEDIATRIC SPLENIC TRAUMA: A 10-YEAR EXPERIENCE S. Widder, R. Eccles, D. Sigalet, A. Wong Alberta Children's Hospital, 1820 Richmond Road, SW Calgary, AB T2T 5C7 CANADA

8:50 – 9:10  REFRESHMENT BREAK
SCIENTIFIC SESSION IV
MIDGUT

23  9:10  OR  PROTECTIVE MODERATE HYPOTHERMIA
INFLUENCES HEPATIC GENE EXPRESSION
FOLLOWING INTESTINAL ISCHAEMIA-
REPERFUSION INJURY.
E.J. Parkinson, K.M. Lawrence, D.S. Latchman,
S. Eaton, A. Pierro
Institute of Child Health, 30 Guilford Street, London
WC1N 1EH UNITED KINGDOM

24  9:22  OR  TOTAL GLUTATHIONE IS NOT REDUCED IN
INFANTS WITH NECROTISING ENTEROCOLITIS.
N.L. Hall, J. Ali, A. Pierro, S. Eaton
Institute of Child Health, 30 Guilford Street, London
WC1N 1EH UNITED KINGDOM

25  9:34  OR  PEROXYNITRITE DECOMPOSITION CATALYST
FeTMPyP DOWN-REGULATES THE EXPRESSION
OF P-SELECTIN INDUCED BY NEONATAL
INTESTINAL ISCHAEMIA AND REPERFUSION.
G. Stefanutti, V.V. Smith, P. Lister, N.J. Klein, A. Pierro,
S. Eaton
Institute of Child Health, 30 Guilford Street, London
WC1N 1EH UNITED KINGDOM

26  9:46  OR  INTESTINAL BLOOD FLOW IN SURGICAL
DISEASES OF THE BOWEL IN NEWBORNS.
A.V. Podkamenev, V.V. Podkamenev
City Children Hospital, 57 Sovetskay St., Irkutsk
664009, RUSSIA
GLUCAGON-LIKE PEPTIDE-2 INDUCES INTESTINAL ADAPTATION IN PARENTERALLY FED RATS WITH MASSIVE DISTAL SMALL BOWEL RESECTION.
O. Bawazir, L.E. Wallace, G.R. Martin, G. Zaharko, A. Miller, A. Zubaidi, D Sigalde
Alberta Children’s Hospital, 1820 Richmond Road SW, Calgary, AB T2T 5C7 CANADA

THE USE OF EPIDERMAL GROWTH FACTOR IN PEDIATRIC SHORT BOWEL SYNDROME.
D. Sigalde, G.R. Martin, J.D. Butzner, A. Buret, J.B. Meddings
G.I. Research Group, Alberta Children’s Hospital
1820 Richmond Road SW, Calgary, AB T2T 5C7 CANADA

NEONATAL SHORT BOWEL SYNDROME (SBS): A COHORT STUDY
P.W. Wales, N. de Silva, J.H. Kim, L. Lecce, A. Sandhu, A.M. Moore
The Hospital for Sick Children, 555 University Ave., Toronto, ON M5G 1X8 CANADA

ORGAN CHANGES AND BACTERIAL TRANSLOCATION IN A RAT MODEL OF CHRONIC REJECTION AFTER SMALL BOWEL TRANSPLANTATION.
Hospital Universitaria La Paz, Pediatric Surgery Department, *Pathology Department, Paseo de la Castellana, no 261, Madrid 28046 SPAIN

10:46 – 11:00
SHORT BREAK

11:00 – 11:30
1. History of Louis Riel - Dr. Frank M. Guttman
2. CAPS Sponsored Travel Report

11:30 – 12:30
"2 MINUTES – 2 SLIDES"

12:30 – 14:30
CAPS LUNCH AND BUSINESS MEETING
SUNDAY, OCTOBER 3, 2004

Fort Garry Hotel

07:00 - 09:00  Registration/Exhibits
               Concert Hall Ballroom

07:00 - 07:30  Continental Breakfast
               Concert Hall Ballroom

07:30 - 08:50  Scientific Session V
               Concert Hall Ballroom

08:50 - 09:10  Refreshment Break
               Concert Hall Ballroom

09:10 - 10:06  Scientific Session VI
               Concert Hall Ballroom

10:06 - 11:06  Scientific Session VII
               Concert Hall Ballroom

11:06 - 11:20  Resident prizes for excellence in clinical
               and research presentations.

               President’s Closing Remarks
               Concert Hall Ballroom
SCIENTIFIC SESSION V
PEDIATRIC SURGERY POT-POURRI

31 7:30  OR  GASTROSCISIS REVISITED: ROLE OF INTRA-OPERATIVE MEASUREMENT OF ABDOMINAL PRESSURE.
M. Olesvevich, F. Alexander, M. Khan, J. DiFiore, A. Stallion, K. Cotman
The Cleveland Clinic Foundation, Department of Pediatric Surgery, 9500 Euclid Ave, M14, Cleveland, OH 44195 U.S.A.

32 7:42  OR  REPAIR OF GIANT EXOMPHALOS CAN BE SAFELY PERFORMED IN THE NEONATAL PERIOD
M. Pacilli, L. Spitz, E.M. Kiely, J. Curry, A. Pierro
Institute of Child Health, 30 Guilford Street, London WC1N 1EH UNITED KINGDOM

33 7:54  OR  PERIPHERALLY-INSERTED CENTRAL CATHETERS (PICCs) IN THE NEONATAL INTENSIVE CARE UNIT (NICU): COMPLICATION (C) RATES AMONG PERCUTANEOSLY (PI) AND SURGICALLY-INSERTED (SI) DEVICES.
C. Veinotte, S. Jones, M. Langley, M. Higgins, M. Giacomantonio
Department of Surgery, *Department of Pediatrics, Community Helath and Epidemiology, IWK Health Centre, 5850/5980 University Avenue, PO Box 3070, Halifax, NS, B3J 3G9 CANADA

34 8:06  OR  10-YEAR EXPERIENCE WITH PEDIATRIC LAPAROSCOPIC APPENDECTOMY—ARE WE GETTING BETTER?
S. Phillips, J.M. Walton, I. Chin, P. Fitzgerald, B. Cameron, F. Forrokhyan
McMaster Children’s Hospital, 1200 Main St W, Room 4E3, Hamilton, ON L8N 3Z5 CANADA
SPONTANEOUS COLONG PERFORATION IN EHLERS-DANLOS: CASE REPORT, REVIEW OF THE LITERATURE AND OPERATIVE MANAGEMENT STRATEGIES.
Alberta Children’s Hospital, 1820 Richmond Road SW, Calgary, AB T2T 5C7 CANADA

LONG-TERM CLINICAL OUTCOME IN PATIENTS WITH HIRSCHSPRUNG’S DISEASE AND ASSOCIATED DOWN’S SYNDROME
M. Menzies*, P. Puri
*Children’s Research Centre, Our Lady’s Hospital for Sick Children and Children’s University Hospital, Dublin 12 IRELAND

IMPAIRED EXPRESSION OF MYOGENIC REGULATORY MOLECULES IN THE PELVIC FLOOR MUSCLES OF MURINE EMBRYOS WITH ANORECTAL MALFORMATIONS.
S. Aoi, T. Shimotake, H. Tomiyama, N. Iwai
Children’s Research Hospital, Kyoto Prefectural University of Medicine, Kyoto JAPAN

8:50 – 9:10 REFRESHMENT BREAK
SCIENTIFIC SESSION VI
TWISTS, TEACHING AND TELEMEDICINE

38  9:10  O  RE-EMERGENCE OF AN OLD DISEASE WITH A TWIST: PRIMARY SKIN ABSCESSES WITH COMMUNITY ACQUIRED MRSA
G. Brisseau, H. Faden, G.S. Zallen, T. Adams, P.L. Glick
Departments of Surgery and Pediatrics, State University of New York @ Buffalo, Women and Children's Hospital of Buffalo, 219 Bryant Street, Buffalo, NY 14222 U.S.A.

39  9:22  OR  DECONSTRUCTING SURGICAL EDUCATION: THE STUDENT EVALUATION
H. Hazard*, P.F. Ehrlich**+
Departments of Surgery*, Pediatrics^, West Virginia School of Medicine Morgantown West Virginia Department of Pediatric Surgery*, University of Michigan, F3970 CS Mott Children's Hospital, 1500 East Medical Center Drive, Ann Arbor, Michigan 48104 U.S.A.

40  9:34  O  TELE-PEDIATRIC SURGERY: CAPTURING CLINICAL OUTCOMES
R. Postuma, L. Loewen
Winnipeg Children's Hospital, AE201-840 Sherbrook Street, Winnipeg, MB R2A 1S1 CANADA

41  9:46  C  SPONTANEOUS RESOLUTION OF PRENATAL OVARIAN TORSION
Texas Children's Hospital, 6621 Fannin CCC 650.00, Houston, TX 77030 U.S.A.

42  9:54  O  RETROPERITONEOSCOPIC VARICOCELECTOMY IN CHILDREN AND ADOLESCENTS
G. Cobelli, A. Crucetti, L. Mastroianni, G. Amici, A. Martino
Salesi Children’s Hospital, Via Corridoni 11, 60123 Ancona, ITALY
SCIENTIFIC SESSION VII
TECHNIQUES IN PEDIATRIC SURGERY

43  10:06  TR  SELECTIVE CT SCAN CRITERIA FOR SAFE ENEMA REDUCTION IN CHILDREN WITH PROLONGED INTUSSUSCEPTION.
P.I. Tsai, J. Ellingson^, C-L. Tran, G. Radner^, H. Applebaum
Department of Surgery and Department of Radiology^
Kaiser Permanente, 4760 Sunset Blvd., Los Angeles, CA 90027 U.S.A

44  10:14  OR  VIDEO-ASSISTED THORACOSCOPIC SURGICAL EXCISION OF CYSTIC LUNG DISEASE IN CHILDREN
G. Koontz,+* , V. Oliva+, K. Gow+, M.L. Wulkan+
Departments of Pediatric Surgery+, Emory University School of Medicine, Children’s Healthcare of Atlanta 2040 Ridgewood Dr, Atlanta, GA 30322
Department of Surgery*, University Tennessee College of Medicine, Chattanooga Unit, Chattanooga, TN U.S.A

45  10:26  T  THORACOSCOPIC REPAIR OF PURE ESOPHAGEAL ATRESIA
S. Kay, S. Rothenberg
Hospital of Infants and Children at Presbyterian/St. Luke’s Medical Center, P/SL Professional Plaza West, 1601 East 19th Avenue, Suite 550, Denver, Colorado 80218 U.S.A.

46  10:34  TR  VIDEO OF A LAPAROSCOPIC MORGAGNI HERNIA REPAIR: EMPHASIS ON THE ENDOSCOPIC SUTURE PASSER.
P.S. Puligandla, The Montreal Children’s Hospital, 2300 Tupper Street, Montreal, QC H3H 1P3 CANADA
THORACOSCOPIC TREATMENT OF A PULMONARY HYDATID CYST IN A CHILD: A CASE REPORT
M. Mallik, A. Alqahtani
King Khalid University Hospital and College of Medicine, P.O. Box 84147, Riyadh 11671 SAUDI ARABIA

THE MODIFIED KIMURA'S TECHNIQUE FOR THE TREATMENT OF DUODENAL ATRESIA
Department of Medical and Surgical Pediatrics-Pediatric Neonatal Surgery Unit of University of Messina and
*Department of Anesthesiology and Intensive Care of University of Messina, Policlinico Via C. Valeria 98122, Messina ITALY

V.A.C.® THERAPY™ IN PEDIATRIC SURGERY
R. Postuma
Winnipeg Children’s Hospital, AE201-840 Sherbrook Street, Winnipeg, MB R2A 1S1 CANADA

THE USE OF FIBRIN GLUE IN THE MANAGEMENT OF INTRACTABLE NEONATAL CHYLOTHORAX
N. E. Wiseman
Winnipeg Children’s Hospital, AE206-840 Sherbrook Street, Winnipeg, MB R2A 1S1 CANADA

11:06 – 11:20 RESIDENT PRIZES AND CLOSING REMARKS
ABSTRACTS

ABBREVIATIONS

O         original 8-minute paper
R         resident’s paper
C/T       4 minute case/technique report

O,R       Adjudicated
C/T       Not adjudicated
SPONTANEOUS POSTNATAL RESOLUTION OF CCAM's

Sonia A. Butterworth
Sonia A. Butterworth, Geoffrey K. Blair,
British Columbia Children's Hospital, Vancouver, BC

Purpose: Although antenatal resolution of CCAM's is well documented, complete spontaneous postnatal resolution is rare, its existence even questioned by some.

Methods: All cases of antenatally diagnosed CCAM's over 7 years were retrospectively reviewed. Inclusion criteria were: i) antenatal diagnosis of CCAM, ii) persistence on postnatal imaging, iii) subsequent spontaneous resolution on postnatal imaging.

Results: Of 56 antenatally diagnosed CCAM's, 3 patients were identified. All were Stocker type II lesions. In case 1, the CCAM filled the hemithorax on antenatal ultrasound, was smaller on postnatal chest radiograph and disappeared by 30 months of age on CT. Case 2 had significant reduction of the CCAM at birth (persistence of the lesion on initial radiographs and ultrasound was documented). By 5 months, the lesion was not evident on CT. In the third case, postnatal chest radiograph also demonstrated reduction of the CCAM and by 6 months, no lesion was evident on a repeat radiograph (follow-up CT pending). No case was associated with symptoms, polyhydramnios, hydrops, or other abnormalities.

Conclusions: In patients with an antenatal diagnosis of CCAM, spontaneous resolution may occur postnatally in about 5% of cases. Significant reduction in CCAM size may portend possible disappearance and therefore warrants an observational period before resection.

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CAN WE PREDICT THE FAILURE OF THORACOSTOMY TUBE DRAINAGE IN THE TREATMENT OF PEDIATRIC PARAPNEUMONIC COLLECTIONS?

Jamal M, Reebye SC, Zamakhshary M, Skarsgard ED, Blair GK
British Columbia Children’s Hospital, Vancouver, Canada

Background/Purpose: Tube thoracostomy is a basic and standard method of treating pediatric parapneumonic collections. Despite recent work denoting thoracoscopy as a superior method of treatment; few studies have specifically looked at factors predictive of simple tube thoracostomy failure.

We undertook a retrospective review of our cases of parapneumonic collections that were initially treated with tube thoracostomy to identify such factors.

Methods: All cases of non-tuberculous parapneumonic collections treated initially with tube thoracostomy between January 1st, 1992 and December 31st 2002 were reviewed.

A “failed primary tube thoracostomy” was defined as the presence of worsening clinical/radiological signs, which necessitated a further chest procedure (i.e. thoracoscopy or thoracotomy).

Results: Fifty-eight patients were eligible. (See table 1 for results)

<table>
<thead>
<tr>
<th>Mean age (months)</th>
<th>Failed chest tube (N=25)</th>
<th>Successful chest tube (N=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90</td>
<td>52</td>
</tr>
<tr>
<td># patients with concomitant (non-pneumonic) medical condition</td>
<td>8(32%)</td>
<td>1(3%)</td>
</tr>
</tbody>
</table>

Duration of symptoms prior to admission vs. # patients

| ≤ 7 days | >7-14 days | >14 days
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<tbody>
<tr>
<td>10(40%)</td>
<td>8(32%)</td>
<td>7(28%)</td>
</tr>
</tbody>
</table>

Time from admission to surgical referral days

| ≤ 7 days | >7-14 days | >14 days
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>5.8</td>
<td>2.6</td>
<td></td>
</tr>
</tbody>
</table>

Total stay in hospital (days) (range)

| ≤ 7 days | >7-14 days | >14 days
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>23.6 (10-41)</td>
<td>13 (7-25)</td>
<td></td>
</tr>
</tbody>
</table>

Logistic regression analysis using SPSS version 11.0 identified two factors predictive of failure: 1) patients symptomatic more than 7 days prior to admission and 2) patients with concomitant medical conditions (p = .001)

Conclusions: Our results suggest that primary treatment of parapneumonic collections with tube thoracostomy is likely to be unsuccessful in patients who are symptomatic for more than a week or have a concomitant medical condition. A more aggressive primary surgical intervention is suggested for this group.

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3. Session One

Friday 8:04 OR

VIDEO-ASSISTED THORACIC SURGERY (VATS) FOR SPONTANEOUS PNEUMOTHORAX IN CHILDREN

Sonia A. Butterworth
Sonia A Butterworth, Geoffrey K Blair, Jacques G LeBlanc, Erik D Skarsgard
British Columbia's Children's Hospital, Vancouver, BC

Purpose: VATS may facilitate earlier surgical intervention for treatment of spontaneous pneumothorax (SP) without the morbidity of thoracotomy.

Methods: A retrospective review of children with SP treated between 1993 and 2003 was performed. Patients were stratified by treatment: i) thoracostomy tube (TT)/observation, ii) thoracotomy, or iii) VATS. Outcomes included: number of SP episodes, TT days, length of hospital stay (LOS), narcotic use and recurrence. Telephone follow-up was performed.

Results (Table 1): Thirty-nine SP episodes occurred in 31 patients. Thirteen episodes in 11 patients were managed by TT/observation alone. Twenty-six operations (13 thoracotomies, 13 VATS) were performed in 20 patients. Nine patients underwent bilateral procedures: 5 sequential (2 VATS, 3 thoracotomy) for asynchronous, bilateral SP; 4 simultaneous (VATS) for unilateral SP (contralateral blebs on imaging). There were fewer preoperative SP episodes and TT days for VATS reflecting earlier intervention compared to thoracotomy. Narcotic requirement was diminished for VATS. There were 6, 2, and 1 SP recurrences (mean follow-up 47 months) for TT/observation, thoracotomy, and VATS respectively.

Conclusions: In over 60% of children presenting with SP, an operation was performed. VATS enables simultaneous treatment of an asymptomatic contralateral lung, causes less postoperative pain and recurs at rates comparable to thoracotomy, encouraging earlier surgical intervention.

Table 1: Group characteristics and outcomes

<table>
<thead>
<tr>
<th></th>
<th>TT/Observation</th>
<th>Thoracotomy</th>
<th>VATS</th>
</tr>
</thead>
<tbody>
<tr>
<td># of patients</td>
<td>11</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td># of operations</td>
<td>0</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>mean age (y)</td>
<td>15.4</td>
<td>13.6</td>
<td>14.6</td>
</tr>
<tr>
<td>mean # of same side SP episodes</td>
<td>1.5</td>
<td>1.9</td>
<td>1.1</td>
</tr>
<tr>
<td>mean preop thoracostomy tube (d)</td>
<td>2.9</td>
<td>18.8</td>
<td>4.7</td>
</tr>
<tr>
<td>mean postop thoracostomy tube (d)</td>
<td>n/a</td>
<td>4.1</td>
<td>3.8</td>
</tr>
<tr>
<td>mean LOS (days)</td>
<td>4.4</td>
<td>9.9</td>
<td>6.7</td>
</tr>
<tr>
<td>mean postop narcotic use (morphine equivalent mg/kg/d)</td>
<td>n/a</td>
<td>0.58</td>
<td>0.27</td>
</tr>
</tbody>
</table>

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POSTNATAL PULMONARY DISTENSION FOR THE TREATMENT OF PULMONARY HYPOPLASIA: PILOT STUDY IN THE NEONATAL PIGLET MODEL

Andreana Büttner MD, MSc*, Bruno Piedboeuf MD, FRCP†, Hélène Flageole MSc, MD, FRCS(C)*, Brian Meehan, BSc*, Jean-Martin Laberge MD, FRCS(C), FACS*  
* From the Division of Pediatric Surgery, The Montreal Children's Hospital, Montreal, QC  
† From the Department of Pediatrics, Laval University, Centre Hospitalier Universitaire de Quebec, Sainte Foy, QC

Background: Accelerated lung growth has previously been demonstrated after fetal tracheal occlusion. The purpose of this study was to determine if short term perfluorocarbon (PFC) distension could increase lung growth postnataally in neonatal piglets.  
Methods: Eleven piglets, aged 5 – 8 days, were divided into 3 groups: (a) controls (n=4), (b) PFC x 6 hrs (n=3) and (c) PFC x 12 hrs (n=4). A right posterolateral thoracotomy was performed and a pressure monitoring catheter was placed in the posterior segment of the right upper lobe (RUL). PFC was infused and a mean intrabronchial pressure of 12 mm Hg was maintained (range 5-21 mm Hg). The control piglets also had a thoracotomy with RUL bronchus dissection without ligation or PFC distension. All piglets were injected with thymidine-3H 3 hrs prior to sacrifice. Both right (RPS) and left (LPS) posterior segments of each upper lobe were analyzed for their respective amount of total DNA by fluorometry. DNA synthesis rates for each segment were determined by precipitating incorporated thymidine 3H with 5% trichloroacetic acid and reporting this value by the total amount of DNA. The differential lung DNA synthesis rate was calculated as (RPS/LPS) x 100. Statistical analysis consisted of one-way ANOVA and Student’s t-tests. Significance was achieved when p≤0.05.  
Results: Heart rate, mean arterial pressure, temperature, oxygen saturation, pH, pCO2 and pO2 were similar in all 3 groups. Lung DNA synthesis was nearly doubled in the PFC x 6 hr group compared with controls (302% vs. 165%, p=0.05). PFC x 12 hr animals experienced a 261% increase (p=NS).  
Conclusion: Short term PFC distension in neonatal piglets resulted in increased DNA synthesis within 6 hrs, presumably due to stretch-induced mechanisms.

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RECENT CHALLENGES IN THE MANAGEMENT OF CONGENITAL TRACHEAL STENOSIS: AN INDIVIDUAL APPROACH

The Airway Reconstructive Team, Anesthesia, Helen Holtby, Cardiac Surgery, Chris Calderone, John Coles, Critical Care, Peter Cox, Desmond Bohn, ENT, Vito Forte. General Surgery, Priscilla P.L. Chiu, and Peter C. W. Kim
The Airway Reconstructive Team, Divisions of General Surgery, ENT, Anaesthesia, Cardiac Surgery, Critical Care. The Hospital for Sick Children, Toronto.

Background: Congenital tracheal stenosis (CTS) represents a life-threatening condition, which is thought to invariably require an urgent surgical correction. Here, we report our recent experience of 11 consecutive patients over the past 12 months, diagnosed with CTS.

Method: Retrospective analysis of all patients admitted to our institution with CTS between April 2003 and March 2004 was performed.

Results: Three of 11 patients ((5M:6F) were premature with mean GA of 30 weeks. The mean age at repair was 4.2 months (Range: 1 - 9 months). Eight presented with cardiac arrests or “near death” spells, 4 with co-presenting pulmonary infection. Eight patients were local and 3 were national. The types of surgical repair included slide tracheoplasty (n = 4), rib cartilage tracheoplasty (n = 4), and balloon dilatation (n = 1). Pre-operative imaging invariably underestimated the severity of pathology. Two patients with minimal symptoms were treated non-operatively. Two patients required additional endobronchial stents for bronchomalacia. Cardiopulmonary bypass was used in 6 patients. There were 2 planned withdrawal of treatment. The remaining patients were discharged to home or referring institutions.

Conclusions: Presentation of CTS is usually precipitated by respiratory infection. Pre-operative imaging often under-estimated the caliber and length of pathology. The treatment options for patients with CTS, including observation should be individualized.

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MIDTERM EVALUATION OF CARDIOPULMONARY EFFECTS OF CLOSED REPAIR PECTUS EXCAVATUM

Authors: David L. Sigalet, Joyce Harder, Mark Montgomery, Osama A. Bawazir
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Calgary, AB

Background/Purpose: The closed or “Nuss” repair of pectus excavatum has greatly increased the numbers of patients requesting repair. Herein we report the cardiopulmonary and subjective effects of up to two years follow-up.

Methods: Patients were followed prospectively after referral for operation. All patients underwent preoperative computed tomography scan, pulmonary function studies, exercise tolerance, and echocardiographic evaluation. Evaluations were done preoperatively, at three months and then twenty-one months post operation.

Results: Sixty-one patients have completed pre and postoperative evaluation, fourteen patients have been followed to two years. Patients reported a subjective improvement immediately post op in appearance and shortness of breath, with ongoing improvement at two years in subjective evaluation. Initial post op decline in pulmonary function studies was regained to near normal by two years post op, and immediate post op improvement of cardiac function was maintained.

Conclusions: These results show that closed repair of pectus excavatum gives a significant early improvement in subjective feeling of shortness of breath, with improved appearance and pulmonary function at two year follow-up.

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INTRAPERICARDIAL TERATOMA IN THE PERINATAL PERIOD

Authors: Shawn MacKenzie, Steven Loken, Nove Kalia, Joyce Harder, David Sigalet
Alberta Children's Hospital, Pediatric General Surgery,
Cardiology and Pathology

Background/Purpose: Intrapericardial teratomas are rare tumours. Here we describe an antenatally diagnosed tumour, and the outcome of the case, with a review of the literature.

Methods: Case report with structured literature review.

Results: The case under review was a newborn infant diagnosed antenatally during a post term ultrasound done for an infant at 41 weeks. A pericardial mass measuring 4.2-cm thought to be a cardiac myxoma was noted, and labour was induced. The child was transferred to our institution, in no distress. CT scan and echocardiograph confirmed a 4 by 5-cm cystic mass in close proximity to the right atrium, with features strongly suggestive of pericardial teratoma. By mediastinotomy the pericardium was explored and a mature pericardial teratoma arising from the root of the aorta was removed without complication. The child made an uneventful postoperative recovery.

The literature review shows us a rare primary cardiac tumour with less than 60 reported cases. Fifteen cases have been reported with antenatal diagnosis, and approximately 33% of infants died in utero from cardiac obstruction. Management of antenatally diagnosed teratomas is based on gestational age and cardiac status. If deteriorating hydrops is noted then induced and delivery with aggressive resection is indicated.

Conclusions: With typical findings a surgical resection without cardiopulmonary bypass is the treatment of choice. 15% are malignant, but if the pathology is benign a good long-term outcome can be expected.

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MULTI-STAGED ESOPHAGEAL ELONGATION TECHNIQUE FOR LONG-GAP ESOPHAGEAL ATRESIA: EXPERIENCE WITH 7 CASES AT A SINGLE INSTITUTION

Shigeru Takamizawa
Eiji Nishijima, Chikara Tsugawa, Toshihiro Muraji, Shiiki Satoh, Yukihiro Tatekawa, Ken Kimura
Department of Surgery, Kobe Children's Hospital, Kobe, Japan

**Background/Purpose:** Esophageal reconstruction for long-gap esophageal atresia (EA) is still controversial. We successfully treated 7 patients with long-gap EA with their own elongated esophagus. The elongation technique and the efficacy of this procedure are summarized.

**Methods:** Seven patients with long-gap EA (Gross type A; 5, type B; 1, type C; 1) underwent multiple elongation esphagogastomy (EES) of the upper pouch and subsequent esphago-esphagogastomy during the last 10 years. Medical records were reviewed with regard to the number of EES required, interval between each EES, operating time, time to first feeding, duration of hospital stay, and complications.

**Results:** The definitive esophageal reconstruction was successfully achieved without major complications in all patients after 2 to 4 EES in each patient. The interval of each EES was 73 days in average. The average operating time was 96 minutes. The length elongated was 1 to 3.5 cm. Oral sham feeding was recommenced 4.1 days after each EES and the hospital stay was 9.6 days. Gastroesophageal reflux occurred in all patients, requiring anti-reflux surgery.

**Conclusions:** 1. Effective esophageal lengthening was obtained with multiple EES and restoration of the native esophagus was achieved in long-gap EA. 2. This procedure allows oral sham feeding at home until esophageal reconstruction.

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LAPAROSCOPIC OR OPEN FUNDOPICATION FOR GASTRO-ESOPHAGEAL REFLUX? A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS.

Chowdhury M, McHoney M, and Pierro A.
Institute of Child Health and Great Ormond Street Hospital for Children
London, U.K.

Purpose: To determine whether laparoscopic (LNF) or open Nissen fundoplication (ONF) provides better clinical outcomes for gastro-oesophageal reflux.

Methods: MEDLINE and Cochrane databases were reviewed to identify randomised controlled trials (RCTs) comparing LNF versus ONF. Meta-analysis was performed for each outcome, calculating relative risks (RR) and 95% confidence intervals (CI) for dichotomous variables, and estimate weighted mean difference (eWMD) for continuous variables.

Results: Review of 195 articles identified 7 RCTs.

Mean conversion rate with LNF was 8.5% (CI=3.5-13). Acid reflux: mean % time pH<4.0 was 3.4% (CI=2.3-4.1) after ONF and 1.5% (CI=0.27-0.46) after LNF (p=0.496). ONF was associated with shorter operative time (eWMD=23.4 mins, p=0.0047) and 35.9% less dysphagia (RR=0.62 (CI=0.39-1.00); p=0.05).

Persistent dysphagia requiring dilatation/re-operation was 18% lower with ONF (RR=0.23 (CI=0.06-0.93); p=0.03). ONF was associated with 88.1% more abdominal complications (RR=5.97 (CI=2.82-12.67); p<0.00001), 77.2% more non-abdominal complications (RR=2.50 (CI=1.44-4.38); p=0.001), longer hospital stay (eWMD=2.4 days, p=0.0005) and longer sick leave (eWMD=17.1 days, p=0.0188). Data on operative failure rates was poorly reported. No sampling bias was identified in the analysis (p>0.05).

Conclusions: Laparoscopic and open fundoplication are equally effective in alleviating gastro-oesophageal acid reflux. However laparoscopy is associated with significantly fewer complications, shorter recovery but higher incidence of dysphagia.

Favours OpenFavours Lap

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CLINICAL OUTCOME OF A BLIND RANDOMISED CONTROLLED TRIAL OF LAPAROSCOPIC VS. OPEN NISSEN FUNDOPPLICATION IN CHILDREN

McHoney M, Eaton S, Howard R, Drake DP, Kiely EM, Curry J, Spitz L, Pierro A
Institute of Child Health and Great Ormond Street Hospital for Children
London, U.K.

Background/Purpose: We performed a blind randomised controlled trial to assess clinical outcome of children after open and laparoscopic fundoplication.

Methods: Thirty-nine children undergoing Nissen fundoplication were randomized to laparoscopic (n=20) or open (n=19) surgery using minimisation for age, neurological status and surgeon. Intraoperative, postoperative analgesia and postoperative feeding protocol were standardised. Parents, nurses and pain control team were blinded to patient allocation. Pain assessment score was standardised, morphine requirement and postoperative complications were recorded. Data are compared using t-test (mean±SEM) or Mann-Whitney test (median and inter-quartile range).

Results: Follow-up was 22 (12-34) months. There were 2 conversions to open surgery (not included in analysis). Operative time was longer in laparoscopy (160±30min) vs. open (83±18; p<0.001). Time (days) to full feed [open 2 (2–4); laparoscopic 2 (2–4)] and hospital stay [open 4.5 (3–7.5); laparoscopic 5 (4–6.5)] were not different. Pain scores and morphine requirements were similar. Incidence of retching was higher after open (44%) vs. laparoscopy (11%; p=0.005). Incidence of dysphagia, ileus, infection and recurrence were not significantly different between groups.

Conclusions: Laparoscopic Nissen in children is associated with lower incidence of postoperative retching suggesting less severe disruption of gastric motility.

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SURGERY FOR PEPTIC ULCER DISEASE IN CHILDREN IN THE POST-H2 BLOCKER ERA

Mary J. Barnes, M.D., Sarah J. Kollenberg, Mary L. Brandt, M.D., David E. Wesson, M.D., Jed G. Nuchtern, M.D., Paul K. Minifie, M.D., and Darrell L. Cass, M.D.
Division of Pediatric Surgery, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, TX, USA

Background/Purpose: To determine the presentation, treatment and outcome of children requiring surgery for peptic ulcer disease (PUD) in the post-H2-blocker era.

Methods: The charts of all children undergoing surgery for PUD in our institution since 1980 were retrospectively reviewed. Data was collected regarding clinical presentation, operative details, postoperative course and outcome.

Results: Twenty-nine children (7.4±7.3 years) required surgery for complications of PUD [Bleeding (n=13), pneumoperitoneum (n=11), peritonitis (n=3), and gastric outlet obstruction refractory to medical therapy (n=2)]. Twenty-four children required urgent laparotomy with oversewing of a bleeding gastric or duodenal ulcer (n=10), or closure and patch repair of a perforated ulcer (n=14). Three children underwent vagotomy and pyloroplasty; and 2 required vagotomy and antrectomy. Preoperative risk factors were present in 28/29 patients [including steroid (n=11) or NSAID (n=4) medications (only 3 or which were taking anti-ulcer prophylaxis), a history of PUD (n=4), and congenital heart disease (n=4)]. Postoperative complications occurred in 11/29 patients, including re-operation for persistent or recurrent ulcer disease in 3 children. Four children died.

Conclusions: PUD remains a highly morbid and mortal condition in children despite the availability of effective acid-reducing medications. Effective prophylaxis of children receiving steroids and NSAIDs may play a role in decreasing the risk of PUD.

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GASTRIC DIVISION FOR RECALCITRANT AEROPHAGIA

Purpose/Background: Aerophagia, the pathological swallowing of excessive air causing abdominal distension and pain, can be a disabling condition in children. Abdominal discomfort may be so severe that the afflicted children limit their food intake. The standard surgical option is placement of a gastrostomy tube. Alternative surgical options are poorly defined.

Method: Case Report

Results: We present a 12 year old child with Smith-Lemli-Opitz syndrome and mental retardation afflicted by severe aerophagia. The boy had previously undergone a Nissen fundoplication, gastrostomy tube, and jejunostomy tube placement without relief of his distension or abdominal pain. His x-rays revealed excessive amount of air throughout the intestines. He was dependent on total parenteral nutrition. The patient subsequently underwent an operative gastric partitioning utilizing a TA-55 stapler and placement of a gastrostomy tube in the proximal gastric pouch. At one week postoperatively, the patient was able to meet his nutritional requirements through enteral feeding and was taken off total parenteral nutrition.

Conclusion: Aerophagia can be a disabling condition in children. Surgical options are limited to gastrostomy tube placement for venting of swallowed air. We offer complete gastric partitioning as an option for severe symptomatic aerophagia after gastrostomy tube failure.

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GASTRIC VOLVULUS IN CHILDREN: MYTH OR REALITY?

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Purpose: A review of all children presented with gastric volvulus since 10 years.
Methods: The charts of all children presented with such diagnosis from 1992 to 2003 and subsequently operated upon for this reason were reviewed: 21 children were concerned whose age ranged from 0.2 mo to 4.3 years.
Results: Initial symptoms were acute abdominal pains following meals, vomittings, and in 5 cases, acute apnea associated with palor, cyanosis and hypotonia. At the first attempt, EG contrast studies revealed an organo-axial gastric volvulus in all cases. The surgical procedure was an anterior gastropexy associated with a reinforcement of the esophago-gastric angle performed by laparoscopy in 15 cases and by an open approach in 6. In one occurrence an open anti-reflux procedure (Dor) was initially performed. All the children received a postoperative antireflux medical treatment for at least one month.
The follow-up period last from 4 mo to 4.8 years. 2 children operated though a laparotomy were reoperated upon (Toupet) for persistent GER. 17 children are symptom free without treatment. 2 most recent cases are symptom free, but still under medical treatment.
Conclusions: Gastric volvulus is a clinical and radiological reality, which can be released by a gastropexy. Initial fundoplication is not mandatory. The laparoscopic gastropexy is a good option as it may be sufficient and allows a redo lap procedure if needed.

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BIP (BUTTON GASTROSTOMY INSERTED PERCUTANEOUSLY): A FAVORABLE ALTERNATIVE TO PEG FOR CHILDREN

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Background: PEG has gained wide acceptance for enteral access, however the need of a second intervention for button placement and complications triggered by the tube remain a source of dissatisfaction. The aim of the study was to design a technique of direct percutaneous placement of a non-balloon-type gastrostomy button and to compare it with the standard PEG procedure.

Methods: All cases of PEG performed between July 2000 and December 2003 (31) and BIP accomplished consecutively afterwards until March 2004 (6) were reviewed for age, weight, indication for gastrostomy, length of surgery, complications, analgesia and feeding resumption.

Results: Mean age was 6.6 years (5m-17y) in the BIP group vs 4.4 years (2.5m-15.9y) in the PEG group. Mean weight was 15.1 kg (3.2-29 kg) in the BIP group vs 13.3 kg (2.8-49.5 kg) in the PEG group. Indications for gastrostomy were comparable. There were no intra-operative complications. Operative time was longer in the BIP group (24.7 vs 17.5 minutes). Feedings were tolerated earlier in the BIP group (15.3 vs 23.2 hours). One patient presented subcutaneous emphysema for one day following BIP procedure whereas 12 PEG complications were reported (7 accidental tube withdrawals, 2 aspiration pneumonias and 3 abdominal complications).

Conclusion: BIP compares favourably to the PEG technique and eliminates risk of incidental tube withdrawal and need of secondary button placement.

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LAPAROSCOPIC VS PERCUTANEOUS ENDOSCOPIC GASTROSTOMY TUBE INSERTION: A NEW PEDIATRIC GOLD STANDARD?

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Introduction: Gastrostomy tube insertion is frequently performed in children. Percutaneous endoscopic gastrostomy (PEG) insertion, considered by many to be the “gold standard”, is unavoidably associated with a risk of intestinal perforation, and frequently requires a second anesthetic for its replacement with a low profile “button”. We hypothesized that a laparoscopic technique with low pressure insufflation would yield comparable outcomes, a lower procedural complication rate and require fewer anesthetics per patient.

Methods: A retrospective review of all surgeon-placed gastrostomy tubes (exclusive of those associated with fundoplication or other procedures) between January 2002 and December 2003 was undertaken. Data collected included type of procedure (PEG vs laparoscopic), indication, patient demographics (including neurologic comorbidity), operative time, complications (procedure-specific and non-specific) occurring within 30 days, and number of procedural anesthetics to “achieve” a low profile tube. Groups were compared by univariate and multiple logistic regression analyses.

Results: One hundred nineteen gastrostomy tubes (26 laparoscopic=21.8%) were inserted (table 1). There were no differences in operative times or complications, although 72 (77.4%) of PEG patients required a second anesthetic for tube change.

Conclusion: Laparoscopic G-tube insertion is safe, and easy to perform, with outcomes comparable to that of PEG tube insertion. It obviates the need for a second procedural anesthetic, and may emerge as the gold standard for gastrostomy tube placement.

<table>
<thead>
<tr>
<th></th>
<th>PEG (n=93)</th>
<th>Laparoscopic G-tube (n=26)</th>
</tr>
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<tbody>
<tr>
<td>Mean Age (y)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Mean Weight (kg)</td>
<td>14.4</td>
<td>16.3</td>
</tr>
<tr>
<td>Mean Operative Time (min)</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td><strong>Procedure specific complications</strong></td>
<td>9 (10.8%)</td>
<td>2 (7.7%)</td>
</tr>
<tr>
<td>Non-specific complications</td>
<td>4 (4.3%)</td>
<td>1 (3.8%)</td>
</tr>
<tr>
<td>*Pts requiring GA for tube change</td>
<td>72 (77%)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Indicates significant difference between groups (p<0.05)
†Includes 3 inadvertent colonic perforations

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MELANOMA IN CHILDREN AND THE USE OF SENTINEL LYMPH NODE BIOPSY

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Background: The rarity of pediatric melanoma prompted our review of sentinel lymph node (SLN) biopsy and associated prognosis.

Methods: A chart review from 1989-2004 revealed 12 cases of cutaneous melanoma. Variables analyzed included demographics, site, histology, TMN status, SLN biopsy and/or therapeutic lymph node dissection (TLND), adjuvant treatment, disease-free (DFS) and overall survival (OS).

Results: Mean age at diagnosis was 8.5 years with 7/12 patients under the age of 10 (range: 0.3–17.9). Site distribution was the extremity (7), trunk (4) and head and neck (1). All patients had wide local excision and primary closure or skin graft. Breslow’s thickness averaged 3.5 mm (range: 0.8-6). Only patients diagnosed after 2000 were offered SLN biopsy (extremity=2, trunk=1, head and neck=1). Two patients had positive SLN: one received TLND and interferon (IFN) and one is followed closely (unclear pathology). DFS and OS by stage were: stage I (n=2, 2.8yrs, 100%), stage II (n=6, 5.2yrs, 83%), stage III (n=4, 3.2yrs, 75%) and stage IV (n=0). A stage II patient with tumor ulceration, negative SLN biopsy, adjuvant chemotherapy and IFN died 26 months after diagnosis and a stage III patient with clinically and pathologically positive nodes after TLND died 15 months after diagnosis.

Conclusion: Although a negative SLN biopsy does not guarantee a favourable prognosis, its increasing use will further define its role in pediatric melanoma.

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28 YEARS EXPERIENCE WITH NON WILM'S TUMORS

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Diego Barriera, Michel Lallier

**Background:** Wilm's tumor is the most common childhood renal tumor. The differential diagnosis for a renal mass is extensive. We reviewed our experience with non Wilm's tumors to identify distinguishing features.

**Method:** Charts of patients post-nephrectomy for tumor between 1975 and 2003 were analysed. Data collected included age at presentation, type of presentation, investigations, treatment, pathology and follow-up.

**Results:** Of 182 patients who underwent nephrectomy for tumor, 31 had a non Wilm's tumor (17%). Nice patients had congenital mesoblastic nephroma (CMN), 8 renal carcinoma (RC), 5 clear cell carcinoma (CCSK), 2 angiomylipoma and 6 miscellaneous. The median age at presentation was 10 years excluding CMN who presented antenatally (5/9) of by the first month of life. Most patients presented with an abdominal mass (21/31), 3/31 had hypertension and 2/31 had hematuria. No presentation was trauma related. One patient with RC presented with metastases. All patients were evaluated with an ultrasound without predominant features. All had a radical unilateral nephrectomy except one with unilateral kidney and one with metastases. The median follow-up was 5 years; 3 patients with RC died.

**Conclusion:** Wilm's tumor constitutes the most frequent renal tumor but, in our series, 17% were non Wilm's tumor and were distinguished only by their presentation at the extremes of age.

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PROGNOSTIC VALUE OF POSITIVE GLUT-1 IMMUNOSTAINING IN LIVER VASCULAR TUMOURS OF INFANTS


Background: Evolving hemangiomata stain positively for Glut-1 during their proliferating phases and this feature disappears when the tumors regress. In order to improve therapeutic strategies in Liver vascular tumours (LVT), we the hypothesis that the more aggressive and proliferative ones should be positive for Glut-1 immunostaining in contrast with the stable, non progressive ones.

Methods: Pathology specimens of 11 children with LVT were immunostained for GLUT-1 and also for Ki-67. Patients were divided into two groups: Glut-1 positive (n=4) and Glut-1 negative (n=7) that were compared for age at diagnosis, survival and proportion of proliferating cells.

Results: Mean age at diagnosis was similar in both groups (308±515 vs 70±51 days respectively) (ns) 3/4 children in Glut-1 positive group died versus 2/7 in the Glut-1 negative group (ns) Proliferation index according to Ki-67 immunostaining was 18±1.42 % and 1.42±0.97% respectively in each group (p<0.05).

Conclusion:
- Glut-1 positive tumors have significantly higher proliferation rates than negative ones.
- Its expression was independent of the age at diagnosis.
- Although not statistically significant mortality was higher in children with Glut-1 positive tumors.
- Further studies are needed to address the prognostic value of Glut-1 stain in LVT.

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RELATIONSHIP BETWEEN SURGICAL VOLUME AND CLINICAL OUTCOME: SHOULD PEDIATRIC SURGEONS BE DOING PANCREATODUODENECTOMIES?

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Background: The relationship between surgical volume and clinical outcome is a well established fact in the management of complex adult pancreatic surgery. We examined whether this relationship is applicable and valid in pediatric surgery, given the fact that very few cases are done regularly by any pediatric surgeon even at tertiary care centers. Methods: A retrospective case review of all patients with pancreatic head masses who underwent pancreaticoduodenectomies between 1993 and 2003 was performed. Comparisons were made to the largest series of pancreaticoduodenectomies in the adult literature.

Results: Total of 5 patients were identified in the specified period. The age at presentation ranged from 9 to 17 years of age. The pathology included 2 papillary cystic neoplasms, 1 Ewings sarcoma, 1 dendritic cell sarcoma and 1 non-functioning neuroendocrine tumor. All cases underwent a pylorus preserving pancreaticoduodenectomy. Two patients had portal hypertension with inflammatory adhesions to the vasculature or invasion of colonic mesentery. Mean operative time was 451 minutes with a median of 363 minutes as compared to a mean and median in the adult literature of 420 minutes. Clean margins were obtained in all pediatric patients compared to 71% in the adult literature. Pre-operative chemotherapy was performed in the two patients with sarcomas. Mean follow-up was 40 months. All patients are currently alive, with one patient who underwent subsequent resections for local recurrence. The complications commonly associated with pyloric preservation procedures such as delayed gastric emptying, inadequate resection and marginal ulceration were not noted in this population.

Conclusion: Although 5 consecutives cases of pylorus preserving pancreaticoduodenectomies represent very low volume (1 per 2 years) compared to high volume adult centers, minimal difference in operative time, length of stay and lower morbidity and no mortality were observed in this series. Therefore unlike in the adult population, case volume in the pediatric population may not be a significant factor due to the nature of pancreatic pathology and patient characteristics.

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DEFINING THE PROCESS OF CANCER DIAGNOSIS IN A CHILDREN’S HOSPITAL: OPPORTUNITIES FOR PRACTICE IMPROVEMENT

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Background/Purpose: Integration of hospital-based services plays a critical role in timely diagnosis and initiation of treatment for pediatric cancer. We undertook a hospital audit of consecutively diagnosed cancers to define the process of diagnosis with emphasis on quality and procedural efficiency.

Methods: We audited all solid and liquid tumours (excluding brain and cortical bone primaries) diagnosed between January 1 and December 31, 2003. Data collection included patient demographics, number of diagnostic procedures (imaging, bone marrow or “other” biopsy/resection), number of these procedures requiring general anesthesia (GA), “timing” of procedures (i.e. weekday vs. evenings/weekends), latency of diagnosis for initiation of treatment, and study protocol admissibility.

Results (Table 1): 54 patients were identified: 28 (52%) were male with a mean age of 90 months. Thirty-five patients (65%) had leukemia/lymphoma, while the remainder had a variety of solid tumours, including Wilms’ (3; 5%), neuroblastoma (5; 9%) and rhabdomyosarcoma (2; 4%).

<table>
<thead>
<tr>
<th>Table 1:</th>
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<tbody>
<tr>
<td># of patients who had an outpatient diagnostic procedure (imaging, biopsy)</td>
<td>10 (18%)</td>
</tr>
<tr>
<td># of inpatient diagnostic procedures (per patient)</td>
<td>1=43 (80%)</td>
</tr>
<tr>
<td></td>
<td>2=11 (20%)</td>
</tr>
<tr>
<td>Mean time from admission to diagnosis/initiation of treatment (days)</td>
<td>4.9</td>
</tr>
<tr>
<td>Timing of biopsy, excisional procedure and/or vascular access: # on a weekday, 8am-5pm</td>
<td>51 (58%)</td>
</tr>
<tr>
<td>Number of procedural GA’s (per patient)</td>
<td>0=4 (7%)</td>
</tr>
<tr>
<td></td>
<td>1=32 (60%)</td>
</tr>
<tr>
<td></td>
<td>≥2=18 (33%)</td>
</tr>
<tr>
<td># of patients requiring additional surgical procedure(s) under GA following biopsy*†</td>
<td>34 (64%)</td>
</tr>
</tbody>
</table>

*venous access procedure=89%
†35% of venous access procedures on a weekday, 8am -5pm

Conclusions: In our hospital, the time from presentation to initiation of therapy was less than 5 days. Specific opportunities for process refinement include: 1) maximizing outpatient diagnostic workup, 2) performing as many oncologic procedures under the fewest anesthetics and 3) increasing the ratio of procedures done during weekdays, compared to weeknights and weekends.

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ACCIDENTS IN CHILDREN DO NOT HAPPEN AT RANDOM: PREDICTABLE TEMPORAL PATTERN OF INJURIES IN CHILDREN

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Background: Several chronobiologic studies show accidents in adults do not occur at random. As a part of our epidemiologic studies, we looked for the temporal pattern of injuries in children.

Methods: Prospective study of 15'110 childhood traumas were recorded by the Pediatric Surgery Department (CHUV-Lausanne, Switzerland) between 01.01.90 and 12.31.97. The exact clock hour, day of the week and date when the injury occurred and other germaine data were obtained. Time series were analyzed by several statistical (ANOVA, cosinor, x^2, peak fit etc.) methods.

Results: Highly statistically significant circadian patterns were detected with a trough at night and a peak in the afternoon (~16:00h). Such 24h variation was validated for whole sample for the entire 8 yr study span as well as the data of each year. Neither gender- nor age-related differences in the 24h pattern was detected between children under 5 yrs of age (non scholar) and children over 5 yrs of age attending school. Small but statistically significant differences in the 24h patterns were observed when type of activity and place of occurrence of trauma were taken into account. There was an increment of injuries on Friday, but not statistically significant. A circannual rhythm was validated with a peak on june 14th ±10 d.

Conclusions: The great stability of the 24h pattern in childhood trauma over the 8yr study span suggests an endogenous origin in addition to the role played by environmental factors. The afternoon peak time of childhood traumas and the circannual peak in june differ from that of adults. The validation of a circadian and circannual pattern in childhood traumas should be taken into account in the design of children’s prevention programs.

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**PSEUDOANEURYSM IN THE MANAGEMENT OF PEDIATRIC SPLENIC TRAUMA: A 10 YEAR EXPERIENCE**

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**Background:** In adults, the pseudoaneurysm is a strong predictor of non-operative management failure (NOM). Davis et al., (*J. of Trauma, 1989*) demonstrated a 24 fold increased risk of NOM failure with the presence of a pseudoaneurysm. Unfortunately, the concept of pseudoaneurysms is not very well studied in the pediatric population. In the literature, there are only 6 reported cases. Our objectives were: to review Calgary’s experience of pediatric splenic trauma, to determine the incidence of pseudoaneurysms, and to determine whether or not pseudoaneurysms contribute to the failure of conservative management.

**Methods:** Retrospective chart review of 10 years (1993-2003) at a major Canadian pediatric trauma centre. Inclusion criteria were: age less than 18, splenic trauma, and follow-up imaging post discharge.

**Results:** 156 splenic injuries were identified, 137 were included within this study. 104 were males while 33 were females. 8 underwent operative management, while 129 were management non-operatively. The incidence of pseudoaneurysms was 4. All pseudoaneurysms were detected via ultrasound, and were treated conservatively.

**Conclusions:** Calgary has excellent success with the conservative management of pediatric splenic trauma. Pseudoaneurysms are a rare phenomenon, and do not lead to NOM failure.

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PROTECTIVE MODERATE HYPOTHERMIA INFLUENCES HEPATIC GENE EXPRESSION FOLLOWING INTESTINAL ISCHAEMIA-REPERFUSION INJURY

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Background: Moderate hypothermia reduces multiorgan dysfunction following intestinal ischaemia-reperfusion injury (IIR); its mechanism of action remains unknown. The aim of this study was to characterise hepatic gene expression following normothermic and moderately hypothermic IIR.

Methods: Adult rats underwent intestinal ischaemia (60min) and reperfusion (120min) or sham (180min) at either normothermia (36-37°C) or moderate hypothermia (31-33°C). 3 groups (n=3) were studied: 1) normothermic sham (NS); 2) normothermic IIR (NIIR); 3) hypothermic IIR (HIIR). Hepatic gene expression was investigated by: i) microarray analyses of mRNA from each liver sample, results evaluated by ANOVA, ii) Polymerase Chain Reaction (PCR) was used to confirm transcript levels of genes of interest.

Results: 1232 transcripts changed between the experimental groups, 41 known genes were differentially expressed (p<0.05) between NS and NIIR (28 increased and 13 decreased). There were 26 genes differentially expressed (p<0.05) between NIIR and HIIR (15 increased and 11 decreased). PCR results confirmed the microarray data: hepatic expression of epidermal growth factor (EGF) was highly attenuated following NIIR and increased following HIIR.

Conclusion: Moderate hypothermia increases hepatic gene expression of EGF. This may represent a potential mechanism of hypothermic protection and provide a novel therapeutic target.

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TOTAL GLUTATHIONE IS NOT REDUCED IN INFANTS WITH NECROTISING ENTEROCOLITIS

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Background: Glutathione is the major intracellular antioxidant protecting against free radical mediated damage. Oxidative stress is implicated in the pathogenesis of necrotising enterocolitis (NEC) and damage could be enhanced by a relative lack of glutathione. We hypothesised that infants with NEC would have lower levels of erythrocyte glutathione when compared with controls.

Methods: Erythrocyte total glutathione concentration (per g haemoglobin[Hb]) was determined in blood samples from infants with NEC (n=16) referred for surgical intervention. Non-septic infants referred for other conditions (e.g. patent ductus arteriosus ligation) served as controls (n=10). Data are mean ± SEM.

Results: Infants with NEC and controls were demographically similar. Mean erythrocyte glutathione concentration in NEC infants was 0.076±0.004?mol/gHb and in controls 0.078±0.005?mol/gHb (p=0.73). There was no significant correlation between glutathione levels and admission weight, gestational age or C-reactive protein levels. In infants with NEC there was no difference in glutathione levels between infants with stage 2 and stage 3 disease (0.076±0.008 vs. 0.076±0.005?mol/gHb; p=0.99) nor between those who died and survivors (0.081±0.014 vs. 0.075±0.005?mol/gHb; p=0.68).

Conclusions: Total glutathione levels are similar in infants with NEC and controls. It is possible that the relative amounts of oxidised and reduced glutathione could be different between the two groups.

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PEROXYNITRITE DECOMPOSITION CATALYST FeTMPyP DOWN-REGULATES THE EXPRESSION OF P-SELECTIN INDUCED BY NEONATAL INTESTINAL ISCHAEMIA AND REPERFUSION

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Background/Purpose: Peroxynitrite, a harmful free radical, is thought to promote intestinal ischaemia-reperfusion (I/R) injury. We investigated the effects of the peroxynitrite decomposition catalyst FeTMPyP on intestinal histology and adhesion molecule expression in an infant model of intestinal I/R.

Methods: Suckling rats (20-30g) underwent 40min superior mesenteric artery occlusion + 90min reperfusion. At reperfusion, animals received either saline alone or saline+30mg/kg FeTMPyP intravenously. Three groups were studied (each n=10): 1) control+saline; 2) I/R+saline; 3) I/R+FeTMPyP. Ileum specimens were stained with H&E, and processed for immunohistochemical detection of P-selectin. Histological injury (1=low, 5=high) and P-selectin expression (1=low, 4=high) were graded blindly. Data are expressed as median [interquartile range] and compared by Kruskal-Wallis test.

Results: Control animals showed normal ileal histology (1 [1-1]). I/R+saline rats showed significant damage compared to controls (4 [2.5-4.5]; p<0.001) which was not prevented by FeTMPyP (2 [1.5-3.5]; p<0.05 vs. control, p=not significant vs. I/R plus saline). Expression of P-selectin was significantly induced in I/R+saline animals (3 [2-4] vs. controls; 1 [1-2.5]; p<0.01), but FeTMPyP reduced the expression of P-selectin to levels comparable to controls (2.5 [2-3]).

Conclusions: FeTMPyP down-regulated P-selectin expression following neonatal intestinal I/R injury, although it did not prevent the development of histological damage.

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INTESTINAL BLOOD FLOW IN SURGICAL DISEASES
OF THE BOWEL IN NEWBORNS

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Background/Purpose: Evaluate intestinal blood flow in surgical diseases of the bowel in newborns and its influence on surgical management.

Material and methods: Direct ultrasound examination of the gut was performed during laparotomies in 58 newborns (intestinal atresia (n=30), malrotation (n=19) and NEC (n=9)). Controls had laparotomies for non-intestinal diseases. Sonographic measurements were done using Smartdop probe (8.2 MHz). The peak systolic (Vmax), mean (Vmean) and end diastolic (Vmin) velocities were recorded from the flow profile. Resistive Index (RI) and Pulsatility Index (PI) were calculated.

Results: Hemodynamic changes in intestinal atresia are characterized by elevated indices of peripheral vascular resistance in the proximal segment with RI to 17.9% (P<0.05); PI to 64.6% (P<0.05), suggesting functional insufficiency. With volvulus, disturbances of intestinal hemodynamics depend upon timing of volvulus and are characterized early on by increases of indices of peripheral vascular resistance and later by decreasing RI to 9% (P<0.02) and PI to 34.9% (P<0.05). NEC is highlighted by a gradual decrease of RI. With preperforation, in NEC, RI decreased to 18% (P<0.05), PI to 40.9% (P<0.05).

Conclusion: Changes in intestinal hemodynamics in surgical diseases of the gut have similar timeline characteristics that clinical judgments have in guiding surgical treatment.

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GLUCAGON-LIKE PEPTIDE-2 INDUCES INTESTINAL ADAPTATION IN PARENTERALLY FED RATS WITH MASSIVE DISTAL SMALL BOWEL RESECTION

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Background/Purpose: Glucagon-like peptide-2 (GLP-2) is an intestinal trophic peptide which has been shown to induce adaptation in residual ileum. Herein we investigate the effects on residual jejunum.

Methods: Juvenile rats underwent an 80% distal small bowel resection leaving proximal jejunum anastomosed to colon. Animals were maintained with parenteral nutrition (TPN) and were randomly assigned to TPN only or TPN + 10 mg/kg/hr of GLP-2. After 7 days in vivo intestinal permeability was assessed; animals euthanized and intestinal tissue processed.

Results: The TPN + GLP-2 animals had reduced intestinal permeability, increased body weight, and small intestinal weight, as well as increases in all morphological indices: villous height, crypt depth, micro-villous height, mucosal surface area, DNA and protein content, increases in both crypt cell production rate and crypt apoptotic rates but no differences in intestinal transporter activity.

Conclusions: This study shows that GLP-2 improves intestinal permeability, and stimulates intestinal adaptation in remnant jejunum. These results suggest that GLP-2 may induce a clinically useful adaptation following massive distal bowel resection, and also show that different segments of the bowel have a differential response to exogenous GLP-2.

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THE USE OF EPIDERMAL GROWTH FACTOR IN PEDIATRIC SHORT BOWEL SYNDROME

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Background/Purpose: This study examined the effects of enterally administered epidermal growth factor (EGF) on nutrient absorption and tolerance of enteral feeds in pediatric patients with short bowel syndrome (SBS).

Methods: Patients with severe SBS (<40% bowel length predicted for age) were prospectively treated human (1-53) rEGF. 100 µg/kg/day was given mixed with enteral feeds for six weeks.

Results: 7 patients have been enrolled. All patients showed a significant improvement in carbohydrate absorption (3-O methylglucose): 24.7 ± 9.7 pre versus 34.1 ± 13.8% post treatment, improved tolerance of enteral feeds (enteral calories as % total calories: 25 ± 28 pre versus 36 ± 24% post treatment (mean ± SD, p < 0.05 by student’s paired t test). Intestinal permeability, weight gain and liver function were not affected. During treatment no patients developed sepsis, however three patient became septic within two weeks of discontinuation treatment. No adverse effects of EGF administration were noted.

Conclusions: These results suggest that enteral treatment with EGF in pediatric short bowel syndrome improves nutrient absorption, increases tolerance with enteral feeds, and may improve the infection rate. Further studies are indicated, exploring treatment strategies including the timing, and duration of EGF administration.

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NEONATAL SHORT BOWEL SYNDROME (SBS): A COHORT STUDY

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Background: To date, our knowledge of morbidity and mortality in neonatal SBS is based on individual case series. Shortcomings of the published literature include: long patient recruitment time, selection bias, variable SBS definitions, failure to account for gestational age and incomplete follow-up. By applying more rigorous methodology, our aim was to determine outcomes of SBS neonates compared to a control group of neonates without SBS.

Methods: A cohort study of all neonates with abdominal pathology requiring laparotomy between Jan. 1/97 and Dec. 31/99 with observation through July, 1/01. SBS was defined as patients requiring parenteral nutrition >42 days or residual small bowel length <25% predicted by gestational age. Student’s t-test, Mann Whitney U and Chi square were used where appropriate.

Results: 175 patients (SBS = 40, No-SBS = 135) with mean gestational age of 30.7±4.6 wks vs 35.9±4.8 wks, respectively (p<0.0005). Major outcomes included:

<table>
<thead>
<tr>
<th></th>
<th>SBS</th>
<th>No-SBS</th>
<th>P-value</th>
<th>RR</th>
<th>95%CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Comp (%)</td>
<td>22 (55.0)</td>
<td>21 (15.6)</td>
<td>&lt;0.0005</td>
<td>3.8</td>
<td>2.2, 6.3</td>
</tr>
<tr>
<td>Sentic events/no LOS*</td>
<td>0.5 (0.3-1.0)</td>
<td>0.0 (0-1.1)</td>
<td>0.001</td>
<td></td>
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</tr>
<tr>
<td>CVL Comp (%)</td>
<td>27 (67.5)</td>
<td>32 (23.7)</td>
<td>&lt;0.0005</td>
<td>2.8</td>
<td>2.0, 4.1</td>
</tr>
<tr>
<td>CVL Comp/1000 CVL days*</td>
<td>11.8 (0-19.1)</td>
<td>0</td>
<td>&lt;0.0005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPN free (%)</td>
<td>15 (62.5)</td>
<td>119 (88.1)</td>
<td>&lt;0.0005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days to Adaptation*</td>
<td>71 (50-116)</td>
<td>12 (8-22)</td>
<td>&lt;0.0005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholestasis (%)</td>
<td>25 (62.5)</td>
<td>14 (10.4)</td>
<td>&lt;0.0005</td>
<td>5.8</td>
<td>3.4, 9.9</td>
</tr>
<tr>
<td>Liver Failure (%)</td>
<td>10 (25.0)</td>
<td>1 (0.7)</td>
<td>&lt;0.0005</td>
<td>5.0</td>
<td>3.4, 7.2</td>
</tr>
<tr>
<td>Hospitalization (days)*</td>
<td>96 (68-188)</td>
<td>15 (9-26)</td>
<td>&lt;0.0005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NICU days*</td>
<td>87 (60-152)</td>
<td>16 (10-30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality (%)</td>
<td>15 (37.5)</td>
<td>18 (13.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Intensity*</td>
<td>22 (10-38)</td>
<td>3 (2-5)</td>
<td>&lt;0.0005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*median with interquartile range

Conclusions: This cohort study clearly illustrates the tremendous morbidity experienced by SBS infants relative to other surgical neonates. Accurate estimates of the morbidity associated with SBS enables clinicians to appropriately counsel parents, allocate resources and initiate therapeutic trials.

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ORGAN CHANGES AND BACTERIAL TRANSLOCATION IN A RAT MODEL OF CHRONIC REJECTION AFTER SMALL BOWEL TRANSPLANTATION


Background/aim: Rejection after small bowel transplantation (SBTx) may allow bacterial translocation (BT) and subsequent changes in the liver and lungs. This study aims at investigating the structure of the intestine and phagocytic organs and the presence of BT in a model of chronic rejection.

Methods: Orthotopic SBTx was performed in syngeneic (ACI-ACI, n=8) and allogeneic (ACI-Lewis, n=8) rat strain combinations. Immunosuppression (Cyclosporine 15mg/kg/day) was given to the allogeneic group (ALLO) on days 0 to 6, and from days 7 to 28 every other day. Saline was used in isogenic group (ISO) instead. Animals were sacrificed on day 65. Under sterile conditions the regional lymph nodes were excised. The nodes and venous samples from the cava and portal veins were cultured for aerobes and anaerobes and E.coli DNA was assessed by PCR. Samples of the liver, spleen, and lungs were obtained and protein and DNA contents were measured. Histologic changes were graded according to standard criteria of chronic rejection. Histological sections of the intestine were analyzed using a computerized image analysis system. The surface index (SI, surface length per linear unit of mucosa), average villous thickness (AVT), average villous height (AVH), and the number of villous cells/100 mm length (VC) were measured.

Results: 2/8 and 4/8 rats died in the first week after ISO and ALLO transplantation respectively. Weight gain was slower in ALLO rats but there were no differences in either liver, spleen and lungs weights or DNA and protein contents in comparison with controls. Gram-negative enteric bacteria were found in 2/4 ALLO and 2/6 ISO rats (ns) and aerobic Gram-positive bacteria were found in 2/4 and 2/6 (ns) respectively. Anaerobic growth occurred in mesenteric lymph nodes in only 1 ALLO rat. E.coli DNA was negative in all animals.

Lungs were severely emphysematous in ALLO rats and no other histologic anomalies were found in the remaining phagocytic organs. Mild rejection was found in all ALLO rats. SI was significantly decreased in ALLO rats, with the remaining morphometric parameters being similar in both groups.

Conclusions: There were intestinal lesions in ALLO rats that might be consistent with chronic rejection and lung lesions in these animals could be related to BT occurring at some point after SBTx. However, contrary to our expectations, no significant BT was demonstrated at the end of the experiments in either group.

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GASTROSCHISIS REVISITED: ROLE OF INTRA-OPERATIVE MEASUREMENT OF ABDOMINAL PRESSURE

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The Cleveland Clinic Foundation

Background/Purpose: Animal studies have shown that visceral circulation is well preserved when intra-abdominal pressure does not exceed 20mm Hg. Our aim was to analyze the outcomes of a series of infants with gastrochisis whose surgical management was directed by the intraoperative measurement of their bladder pressure.

Methods: Thirty-eight infants, evaluated from 07/1992 to present at a tertiary care facility and diagnosed with gastrochisis, were surgically managed by intraoperative measuring of their bladder pressures. Closure in a primary fashion with or without prosthetic material was completed when pressures measured < 20mm Hg. Delayed closure with silo pouch was completed when pressures measured >20 mm Hg. Categorical variables analyzed included bowel thickening or dilatation, mode of delivery, associated anomalies, preoperative rind evaluation, type of closure, complications and mortality. Continuous variables analyzed include gestational age, birth weight, bladder pressure, time to full feeds, and length of hospital stay. This study was approved by the Investigational Review Board prior to commencement.

Results: Thirty infants (79%) with a mean bladder pressure of 15mm Hg, underwent primary closure and 8 infants (21%) with a mean bladder pressure of 23.5mm Hg underwent delayed closure with a silo pouch that was not spring loaded. One patient with total evisceration was treated by silo pouch but died. A comparison of categorical and continuous variables is given below. Fischer’s exact test and Wilcoxon rank sum compared variables. A significance level of 0.05 was used throughout.

Conclusions: Primary closure was safely accomplished by measuring intraoperative bladder pressures in 100% of infants who presented with gastrochisis and a pressure <20mm Hg. Furthermore, this patient population had a shorter length of hospital stay compared to infants who required silo pouch closure.

Key Words: gastrochisis, primary closure, bladder pressure measurement, congenital anomaly

Objectives
1. Surgical management of gastrochisis patients
2. Pre-surgical evaluation of gastrochisis patients
3. Bladder pressure guidelines for surgical repair

Table 1: Comparison of Gastrochisis Management with Preoperative and Postoperative Variables

<table>
<thead>
<tr>
<th>Effect</th>
<th>Primary Closure</th>
<th>Silo Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Weight (kg)</td>
<td>N=30</td>
<td>N=8</td>
</tr>
<tr>
<td>N=30</td>
<td>2.5 (2.2, 2.8)</td>
<td>2.6 (2.3, 2.7)</td>
</tr>
<tr>
<td>Gestational Age (wks)</td>
<td>N=30</td>
<td>N=8</td>
</tr>
<tr>
<td>N=30</td>
<td>37.0 (36.0, 38.0)</td>
<td>35.5 (34.0, 37.5)</td>
</tr>
<tr>
<td>Bladder pressures (mmHg)</td>
<td>N=30</td>
<td>N=8</td>
</tr>
<tr>
<td>N=30</td>
<td>15.0 (12.5, 18.0)</td>
<td>23.5 (22.0, 25.0)</td>
</tr>
<tr>
<td>Length of Hospital Stay (days)</td>
<td>N=30</td>
<td>N=8</td>
</tr>
<tr>
<td>N=30</td>
<td>25.0 (20.0, 35.0)</td>
<td>35.0 (31.5, 41.0)</td>
</tr>
<tr>
<td>POD to full feeds (days)</td>
<td>N=30</td>
<td>N=8</td>
</tr>
<tr>
<td>N=30</td>
<td>19.0 (13.0, 30.0)</td>
<td>29.0 (23.0, 37.0)</td>
</tr>
</tbody>
</table>

A Significance level of 0.05 was used throughout

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REPAIR OF GIANT EXOMPHALOS CAN BE SAFELY PERFORMED IN THE NEONATAL PERIOD

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Purpose: To analyse the outcome of giant exomphalos repaired in the neonatal period.

Methods: Twelve consecutive (1996-2003) neonates with giant exomphalos (defect >5 cm with liver herniation) were reviewed. A silo of Prolene® mesh was attached to the fascia and the defect was closed without opening the sac after sequential reduction. Data are median and range.

Results: Gestational age was 38 weeks (32-40) and birth weight 2.9 Kg (1.0-3.1). The final closure was achieved at 26 days (16-62). Three neonates died (25%) before closure (causes: ruptured exomphalos, lung hypoplasia, cardiac anomalies and intestinal failure). Mechanical ventilation was required in all for 8 days (2-20). Hospital stay was 42 days (23-73). Full enteral feeding was achieved on day 12 (4-53). Complications included wound infection (n=5) and midgut volvulus in 1. Prophylactic Ladd’s procedure was performed at birth in one and laparoscopically after closure in two children. At laparoscopy intraperitoneal adhesions were minimal and the central liver did not preclude the operation. The 9 survivors are all well after 31 months (3-38).

Conclusions: Giant exomphalos can be safely repaired in the neonatal period without opening the sac. Malrotation should be excluded and Ladd’s procedure can be performed laparoscopically at a later stage.

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PHERIPHERALLY-INSERTED CENTRAL CATHETERS (PICCs) IN THE NEONATAL INTENSIVE CARE UNIT (NICU): COMPLICATION (C) RATES AMONG PERCUTANEOUSLY (PI) AND SURGICALLY-INSERTED (SI) DEVICES

Cam Veinotte, PGY1 (General Surgery), Dalhousie University
Cam Veinotte MD, Sarah Jones MD PhD1, Joanne M. Langley MD MSc2,3, Ann Higgins RN, BScN4, Michael Giacomantonio MD1

From the Departments of Surgery1, Pediatrics2 and Community Health and Epidemiology3, Dalhousie University, and Infection Control Services4, IWK Health Centre, Halifax

Background: Use of central venous catheters (CVC) to ensure intravenous access in critically ill neonates is routine in NICUs. In our 35-bed, Level 3 NICU, if a PICC cannot be inserted by PI, it occurs by the surgical team using SI (cutdown). We compare outcomes of PICCs inserted by PI v. SI.

Methods: Data was extracted for 1995-2000 from the prospective bedside Infection Control CVC surveillance system database, compiled from insertion, removal, and daily CVC management records. Bi-weekly Doppler ultrasonography results were collected by health record review.

Results: The mean CVC device utilization rate was 12% (762 devices/6350 NICU admissions). PICCs were the most common line type: PICC 73% (556/762), Cook 13.5%, umbilical CVC 12.7%, other 0.6%. 56% (307/552) of PICC catheters were placed by SI. PI and SI-PICCs did not differ in mean placement duration (22.8 days v. 20 days), CVC-associated bacteremia (22 v. 22.7%) or mechanical complications (31% v. 26%). Thrombosis was more common in SI v. PI (6.9% v. 2.7% p<0.05). PICCs were most commonly used in <1000 gm infants (43% of lines), 1000-1499 gm(14%), 1500-1999 gm (8.3%), 2000-2499 gm (6%), >2500 gm (6%).

Conclusion: SI is associated with increased thrombotic complications. PI is the preferred insertion method in this population.

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10 YEAR EXPERIENCE WITH PEDIATRIC LAPAROSCOPIC APPENDECTOMY - ARE WE GETTING BETTER?

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McMaster Children’s Hospital
Hamilton, ON

Background/Purpose: We compare our initial (1994-1997) and recent (2001-2003) experience with laparoscopic appendectomy.

Methods: A two-year (2001-2003) retrospective chart review of cases of appendicitis was performed looking at the clinical presentation, operating room times, length of stay (LOS) and outcomes. This data was compared to laparoscopic appendectomy data obtained from 1994-1997. Cases of conversion to open appendectomy were analyzed with the laparoscopic group.

Results: Two hundred and thirty four laparoscopic appendectomy cases from 2001-2003 were compared to 117 cases from 1994-1997.

<table>
<thead>
<tr>
<th></th>
<th>ACUTE</th>
<th>PERFORATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion rate</td>
<td>4% (3)*</td>
<td>0%*</td>
</tr>
<tr>
<td>Anaesthetic Time</td>
<td>82.0 ± 2.2</td>
<td>71.8 ± 13.5</td>
</tr>
<tr>
<td></td>
<td>(min ± s.e)</td>
<td></td>
</tr>
<tr>
<td>Surgery Time</td>
<td>58.1 ± 2.2</td>
<td>46.7 ± 12.9</td>
</tr>
<tr>
<td></td>
<td>(min ± s.e)</td>
<td></td>
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<tr>
<td>Post-op Abscess</td>
<td>1.4% (1)</td>
<td>0.68% (1)</td>
</tr>
</tbody>
</table>

* = significant difference (p<0.05)

There was no significant decrease in length of stay, amount of analgesia used, time to resume regular diet or incidence of wound infections and bowel obstructions.

Conclusions: Over the ten years of this study there have been decreases in anaesthetic and operating times for acute and perforated cases of appendicitis. There have been significant decreases in the incidence of abscesses as well as conversion rates to open appendectomy.

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SPONTANEOUS COLONIC PERFORATION IN EHLERS-DANLOS: 
CASE REPORT, REVIEW OF THE LITERATURE AND OPERATIVE MANAGEMENT STRATEGIES

Authors: Shawn MacKenzie MD, Sandy Widder MD, Nicole Robbins MSc, 
Steven Loken MD, Adam Oster MD, David Siglaet MD FRCSC 
Robin Eccles MD FRCSC,

Alberta Children’s Hospital, Pediatric General Surgery, and Pathology

Background/Purpose: Ehlers-Danlos syndrome type IV is a rare condition; affected patients are at risk for spontaneous colonic, uterine, and arterial rupture. 
Methods: Case report of youngest patient cited in the literature, with structured literature review. 
Results: A 9 year old female presented with abdominal pain and an upper gastrointestinal bleed. A CAT scan suggested a spontaneous sigmoid perforation; a left hemi-colectomy was performed. Pathology confirmed a 5.2 cm perforation with numerous focal disruptions of muscularis propria. The patient initially recovered but subsequently developed jejunal and gastric perforations, multiple ruptured intraabdominal arteries and a dissection of the aortic arch. The patient remains stable despite the significant Ehlers-Danlos complications. The literature review shows approximately 60 reported cases of spontaneous colonic rupture in this disease. The rate of colonic perforation is 10% at a mean age of 20 years old. The majority of perforations involved the sigmoid colon and were treated initially with a partial colectomy. The re-rupture rate approaches 50%; accordingly colonic perforation warrants a permanent colostomy. 
Conclusions: Ehlers-Danlos type IV is a rare collagen disease with severe life treating complication which requires a high index of suspicion and prompt surgical management.

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LONG-TERM CLINICAL OUTCOME IN PATIENTS WITH HIRSCHSPRUNG’S DISEASE AND ASSOCIATED DOWN’S SYNDROME

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Background/Purpose: Down’s Syndrome is the most common chromosomal abnormality associated with Hirschsprung’s disease (HD). The purpose of this study was to review the long-term clinical outcome in patients with HD and associated Down’s Syndrome.

Methods: Between 1975 and 2003, 39 (15%) of the 259 patients with HD had associated Down’s Syndrome. Follow-up was carried out by means of examination of patient’s records and personal/telephone interviews with the patient’s parents or guardians.

Results: Twenty six (67%) patients presented in the newborn period and 13 (33%) after the neonatal period. Twenty-eight (72%) patients had rectosigmoid HD, 10 long-segment and 1 total colonic aganglionosis. Thirty-two patients had other associated anomalies, 24 of these having cardiac anomalies. Definitive pullthrough operation was performed in 33 patients. Parents of 1 child refused surgical intervention and parents of 2 children decided against pullthrough operation after colostomy. Three children died before pullthrough. Thirteen patients had one or more episodes of enterocolitis after pullthrough operation. At the time of follow-up (6 months to 28 years), 3 patients were found to have reverted back to stoma because of poor bowel control or recurrent enterocolitis. Of the remaining 30 patients, 3 were lost to follow-up and 4 were too young to be assessed for bowel control. Assessment of bowel function in 23 patients revealed normal control in 8 (4 of these soiled for 6-17 years after definitive surgery), soiling in 8, constipation requiring enemas or laxatives in 7.

Conclusion: The vast majority of patients with HD associated with Down’s Syndrome continue to have disturbances of bowel function after definitive pullthrough operation.

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IMPAIRED EXPRESSION OF MYOGENIC REGULATORY MOLECULES IN THE PELVIC FLOOR MUSCLES OF MURINE EMBRYOS WITH ANORECTAL MALFORMATIONS

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Background/Purpose: Recent biological studies have elucidated the molecular mechanism of muscle development, in which various regulatory factors (MRFs) play key roles during embryogenesis. To investigate the development of anorectal malformations (ARM), we studied MRF expressions in myogenic stem cells in the pelvic floor using murine embryos affected with ARM.

Methods: ARM embryos were obtained from the 10.5th embryonal day (E10.5) to the 7.0th postnatal day (D7.0) in a mutant strain (Sd+/+, RSV/Le, Va+/+). Serial frozen sections were prepared for immunohistochemistry using specific antibodies to myogenin and myoD (MRFs), M-cadherin (myogenic stem cell marker), myosin heavy chain (MHC; skeletal muscle), and alpha-actin (smooth muscle).

Results: In normal mice, embryonal caudal somites differentiated into myogenic stem cells and migrated to the pelvic floor between E11.0 and E14.0. In the ARM mice, however, MRF expressions in myogenic cells were markedly decreased in the dorsocaudal region at E11.5-13.0, leading to hypoplastic pelvic floor muscles with meager MHC expression.

Conclusions: The maldevelopment of pelvic floor muscles in ARM is derived from a deficient supply of myogenic stem cells, with impaired MRF expressions. These results suggest that myogenic stem cells, available from bone marrow contents, may be utilized for postnatal muscle regeneration to reinforce the pelvic floor muscle function in ARM children.

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RE-EMERGENCE OF AN OLD DISEASE WITH A TWIST: PRIMARY SKIN ABSCESES WITH COMMUNITY ACQUIRED MRSA

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Background/Purpose: Simple drainage of skin abscesses is usually effective. However, we began routine abscess cultures at our institution following an unexplained pattern of recurrent infection at local and distant sites. We report on our experience with routine culture and the recognition of a new clinical presentation of skin abscesses with an invasive skin pathogen.

Methods: A retrospective chart review of all patients referred to Pediatric Surgery from April 2003 to March 2004 with skin abscesses. Patient, abscess, and bacterial characteristics were identified. Institutional IRB consent was obtained.

Results: In the 11 month period 41 patients were referred with skin abscesses all requiring drainage. 71% of the abscesses were cultured. 14 of 29 cultures grew Meticillin resistant Staphylococcus aureus (MRSA). Only one patient had been in hospital prior for outpatient burn therapy at a distant site making the MRSA community acquired (CA). The phage typing and antibiotic sensitivity for CA-MRSA was unique being sensitive to Septra and Clindamycin. No patients were immunosuppressed or diabetic. Clinical features of CA-MRSA infections were distinct and predictable.

1) primary abscesses (no trauma, cysts etc.) 14/14 MRSA positive
2) site
   a. Extremity 6/10 MRSA Positive
   b. Buttock (non-pilonidal) 8/10 MRSA positive
3) recurrent 5/5 MRSA positive

Given the recurrence rate (36%) all patients with CA-MRSA were treated with drainage plus oral and nasal antibiotics. Once treated all patients with recurrence disease were disease free although one patient required several courses of treatment.

Conclusions: Community acquired MRSA is an emerging problem that pediatric surgeons will encounter. Simple drainage is not adequate as there is a significant recurrence rate. Identification of the patient by culture or clinical features with CA-MRSA will allow for more effective therapy.

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DECONSTRUCTING SURGICAL EDUCATION: THE STUDENT EVALUATION

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Purpose: Student evaluations of medical educational experiences are considered standard. They often form the basis of changes to curriculum. Therefore understanding the differences between an excellent and poor student evaluation from the student perspective is critical to surgical education, yet it remains ill defined. We concurrently assessed comprehensive student evaluations from a surgical clerkship over a 2 year period. The purpose of this study is to report the results of this audit.

Methods: This study took place between 2001 and 2003. The surgical clerkship is 8 weeks divided into 4 two-week blocks. 9 different surgical services were evaluated separately. 26 data points were collected including: demographic, career, objective (i.e. quality and enjoyment) and subjective (i.e. number of ED patients seen) information. A 5 point likert scale (very poor, poor, fair, good, and excellent) was utilized. Statistical analysis was performed using descriptive, chi-squared, t-test and logistic regression where appropriate.

Results: 128 students rotated over 2 years with 113 (88%) completing the assessment, thus 452 service evaluations were analyzed. 61% of the responders were male and 39% were female, with an average age of 25±/- 0.12. Males were more interested in surgical careers then females (4:1, p<0.05). Medicine (family and internal) and surgical subspecialties were the most common (22% and 23% respectively) career interests. Quality of the education experience was highly correlated with enjoyment and a recommendation of the service to others (p<0.05). A reproducible pattern of poor ratings for ED exposure, faculty and resident review of students clinical work was identified for all services (p<0.05). Positive experiences were noted for ambulatory clinics, ward exposure and amount of service vs. sect work. Regression analysis demonstrated that age and gender were not predictors of outcome but a pre-existing interest in psychiatry and anesthesiology trended towards a negative experience ( p<0.05). The “highest rated and lowest rated” service were compared. Of importance chi squared analysis of the 26 data points only demonstrated significant differences in 3 areas (OR experience, resident and faculty teaching.)

Conclusions: Student surgical evaluations underscore the role faculty/resident play in the education. However detailed analysis demonstrates that few actual differences may exist between a strong and weak evaluation. Modifications to surgical curriculum should include but not be limited to student evaluations

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TELE-PEDIATRIC SURGERY: CAPTURING CLINICAL OUTCOMES

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Purpose: Compare outcomes and patient characteristics of telehealth versus in-person contacts in pediatric surgery patients.

Methods: In this descriptive study, retrospective data were collected from a practice database of one pediatric surgeon in a tertiary urban hospital. All non-urban patients (n=323) and a convenience sample 27.3% (n=120) of urban patients seen in a pediatric ambulatory surgical clinic and in day surgery between April 2002 and March 2003 were analyzed.

Results: Of 826 patient contacts, 272 were day surgery procedures. The remaining 554 were consults and follow-ups with 27% (n=152) seen via telehealth. Of the non-urban contacts, 33.4% of consults and 51.5% of follow-ups utilized telehealth. Variations were seen between telehealth and in-person groups on average age at contact (5.19 vs. 7.48 respectively), post-operative complication rates (15.1% vs. 6.2% respectively), intra-operative complication rates (1.9% vs. 2.3% respectively), and patient no-show rates (6.5% vs. 5.4% respectively).

Conclusions: This is the first comparative analysis of telehealth outcomes in a population of pediatric surgical candidates. Analysis revealed significant differences on a number of variables suggesting the need for further prospective studies of indicators for the use of telehealth in pediatric day surgery. This presentation will highlight key findings and recommendations for future practice.

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SPONTANEOUS RESOLUTION OF PRENATAL OVARIAN TORSION

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BACKGROUND: Classic teaching has been to surgically explore, and inevitably resect, perinatal ovarian torsions. We review the outcome of two patients with non-operative management of perinatal ovarian torsion.

METHODS: Retrospective chart review.

RESULTS: Patient A was a term infant with a prenatal diagnosis of a 5 cm simple ovarian cyst. On postnatal ultrasound, the cyst was 4 cm in diameter and was noted to have multiple loculations and increased echogenicity, consistent with ovarian torsion. Multiple ultrasounds showed no change until 11 months of age. At 19 months of age there was complete reabsorption of the cyst by ultrasound and one ovary identified. Patient B was born at term with a prenatal diagnosis of a 4.5 cm simple ovarian cyst. Postnatal ultrasound showed a >4 cm cyst with multiple septations and internal hemorrhage consistent with ovarian torsion. The complex cyst remained stable on ultrasound at 7 weeks. At 16 weeks it had decreased in size to 2.8 cm. At 7 months no mass was identified on ultrasound. At 14 and 19 months ultrasound examination revealed no mass and two normal ovaries.

CONCLUSION: Conservative management or perinatal torsion may offer an alternative that results in better salvage of ovarian tissue.

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RETROPERITONEOSCOPIC VARICOCELECTOMY IN CHILDREN AND ADOLESCENTS

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Purpose: In the pediatric population the failure rate of sclerotherapy for the treatment of varicocele has been reported up to 35%. Therefore the aim of our study was to evaluate the efficacy of retroperitoneoscopic varicocelectomy (RV) in children and adolescents.

Methods: A total of 97 patients were operated on for left-sided varicocele using the retroperitoneoscopic approach between January 1999 and July 2003. Median age was 12.3 years (range, 6 to 16). A 10 mm subcostal retroperitoneoscopic port was used. The operation was performed through an operative laparoscope according the Palomo’s technique, with the mass division of spermatic vessels after bipolar coagulation below the renal vein. Elective conversion to laparoscopic transperitoneal varicocelectomy (LTV) was performed in cases of difficulties to identify the vessels.

The postoperative follow-up included clinical and ultrasound assessment (range, 6 to 48 months).

Results: 17 patients (17,6%) needed elective conversion to LTV. In RV, mean operative time was 28 minutes (range, 15 to 55), mean hospital stay was 2 days, persistence rate was 11,2%, hydrocele occurrence was 6,2%.

Conclusions: Our results indicate that the retroperitoneoscopic varicocelectomy is an acceptable technique to perform the high division of the spermatic vessels. The advantage of this anatomical approach is its very low invasiveness.

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SELECTIVE CT SCAN CRITERIA FOR SAFE ENEMA REDUCTION IN CHILDREN WITH PROLONGED INTUSSUSCEPTION

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Background/Purpose: Enema reduction of ileocolic-intussusception >48hr is avoided due to increased risk of perforation, with operative reduction/resection recommended. The ability to predict viable reducible bowel using specific CT criteria could obviate the need for operation with a safe enema reduction attempt.

Methods: Abdominal CT imaging diagnosed intussusception in 5 children with mild, uncharacteristic symptoms of 4-7 days duration. CT evidence of lead point, bowel wall edema, perforation, ischemia and obstruction were noted, and compared to operative findings.

Results: Contrast CT scans of 5 children showed clear signs of intussusception. The presence of minimal bowel wall edema without evidence of lead point, obstruction, or perforation in 2 children were confirmed with operative findings, which also demonstrated easily reducible intussusceptions with non-ischemic bowel. The remaining 3 had significant CT findings of partial small bowel obstruction and prominent bowel wall edema, which correlated well with surgical findings. Two of these 3 children required bowel resection due to irreducible intussusception with small areas of ischemia.

Conclusions: In our limited series of patients with prolonged intussusception, the absence of bowel wall edema and bowel obstruction on a CT imaging study may identity good candidates for a cautious attempt at enema reduction prior to operative intervention.

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VIDEO-ASSisted THORACOSCOPIC SURGICAL EXCISION OF CYSTIC LUNG DISEASE IN CHILDREN

Presenter: Curt S. Koontz, MD

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Background: Video assisted thoracoscopic surgery (VATS) for resection of cystic lung disease (CLD) may offer some advantages when compared to thoracotomy in children.

Methods: From September 1999 to January 2004, 19 pediatric patients underwent thoracotomy (OPEN) [15] or VATS [4] for CLD. Data is expressed as mean ± SD and was analyzed with the student’s t-test with p < 0.05 as significant.

Results: The types of lesions included CCAM (10), pulmonary sequestration (7), and congenital lobar emphysema (2). The extent of resection included lobectomy (10), segmental resection (5), and excision (4).

<table>
<thead>
<tr>
<th></th>
<th>VATS (n=4)</th>
<th>OPEN (n=15)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>1.3 ± 1.8</td>
<td>1.8 ± 3.8</td>
<td>NS</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>8.2 ± 4.3</td>
<td>11 ± 15</td>
<td>NS</td>
</tr>
<tr>
<td>OR time (minutes)</td>
<td>93 ± 87</td>
<td>126 ± 38</td>
<td>NS</td>
</tr>
<tr>
<td>Chest tube duration (days)</td>
<td>1.3 ± 1.0</td>
<td>2.9 ± 1.0</td>
<td>P &lt; 0.05</td>
</tr>
<tr>
<td>Morphine use (days)</td>
<td>1.0 ± 1.0</td>
<td>2.3 ± 2.8</td>
<td>P &lt; 0.05</td>
</tr>
<tr>
<td>Epidural use (number of patients)</td>
<td>0</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Length of stay (days)</td>
<td>3 ± 2</td>
<td>8.9 ± 11.0</td>
<td>P=0.07</td>
</tr>
</tbody>
</table>

Conclusion: VATS may be quicker, lead to less pain, and shorten hospital stay when compared to thoracotomy for surgery on CLD in children; however, more patients need to be studied.

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THORACOSCOPIC REPAIR OF PURE ESOPHAGEAL ATRESIA

Saundra Kay and Steven Rothenberg

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Background: Advances in endoscopic skill and instrumentation have expanded the possibilities for laparoscopic and thoracoscopic intervention in pediatric surgery. Thoracoscopic repair of esophageal atresia with distal tracheoesophageal fistula has been demonstrated to be feasible, but there are no reports of such repair for long gap pure esophageal atresia.

Method: We report the case of a baby girl born with pure esophageal atresia and an initial gap of 4.5 vertebral bodies (2.5 cm) who after a period of 10 weeks underwent thoracoscopic exploration and primary repair. A 3 trocar technique with low CO2 insufflation was employed with the baby positioned semi-prone.

Results: Although the gap was substantial, mobilization of both segments was carried out under direct visualization and the ends were approximated with simple interrupted sutures despite some tension.

Conclusions: Thoracoscopic repair of pure esophageal atresia is technically feasible and offers advantages over the open approach in terms of exposure and avoidance of thoracotomy.
VIDEO OF A LAPAROSCOPIC MORGAGNI HERNIA REPAIR: EMBRASIS ON THE ENDOSECONDIC SUTURE PASSER

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Purpose: The aim of this video is to show that the endoscopic suture passer is a helpful adjunct in the repair of laparoscopic Morgagni hernia repair.

Methods: Four patients aged 5 months, 8 months, 3 years, and 8 years old had an elective laparoscopic assisted Morgagni hernia repair. A 5 mm telescope was inserted through an umbilical port, and a right and left subcostal 5 mm working ports were placed. The hernia contents were reduced. A small incision is made down to the fascia over the anterior margin of the hernia. Ethibond 2-0 suture bent to a ski needle is then passed from the anterior wall fascia into the peritoneal cavity, and a U stitch is then made through the diaphragm. The needle is cut. The endoscopic suture passer is guided though the anterior wall fascia and the suture is directed to the passer’s groove where it picks up the suture, and drags it out through the fascia. After adequate sutures are placed to close the defect, the sutures are pulled up and tied on the fascia.

Results: There were no intra-operative complications. Patients were discharged home after 3 days.

Conclusion: The endoscopic suture passer is a helpful adjunct in the repair of laparoscopic Morgagni hernia repair.

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THORACOSCOPIC TREATMENT OF A PULMONARY HYDATID CYST IN A CHILD: A CASE REPORT

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Open surgery remain the mainstay of treatment for hydatid cysts. Several reports have confirmed the feasibility of laparoscopic hepatic hydatid surgery. In the English literature there were no reports of using thoracoscopic approach for pulmonary hydatid disease in children. Herein, we report a 9-years old girl, who presented with a 3-weeks history of chest pain and shortness of breath. She was found to have a left lung cyst, the nature of which was not clear. The diagnosis of a hydatid cyst was confirmed intraoperatively. Complete thoracoscopic excision of the endocyst and partial excision of the exocyst was performed uneventfully. The follow-up confirmed a favorable outcome of such a procedure.

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THE MODIFIED KIMURA'S TECHNIQUE FOR THE TREATMENT OF DUODENAL ATRESIA


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Background/Purpose: Kimura’s diamond-shaped-duodenoduodenostomy (DSD) is a known technique for the correction of congenital intrinsic duodenal obstruction. We present a modification of the technique and review the related advantages.

Methods: From 1992 to 2003, 14 newborns were treated for duodenal atresia. We inverted the direction of the duodenal incisions: a longitudinal incision was made in the proximal duodenum while the distal was opened by transverse incision; the duodenal anastomosis was accomplished in a single layer by interrupted 5-0 or 6-0 Vicryl sutures.

Results: Our “inverted-diamond-shaped-duodenoduodenostomy” (i-DSD) provided postoperative oral feeding to start on days 2 to 3, peripheral intravenous fluids discontinuity on days 3 to 8; time to achieve full oral feeds on days 8 to 12; the length of hospitalisation ranged from 10 and 14 days. No complications related to the anastomosis, as leakage, dehiscence, biliary stasis or stenosis were observed.

Conclusions: The i-DSD provides a safe procedure to protect the ampulla of Vater from injury and avoids any formation of a blind loop. The results show that patients who have i-DSD achieve full oral feeds in a very short time period and, consequently, the length of hospitalisation is also significantly reduced. These advantages allow to decrease morbidity and give higher benefit on the hospital cost.

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V.A.C.® THERAPY™ IN PEDIATRIC SURGERY

Ray Postuma
Winnipeg Children's Hospital

Background/Purpose: V.A.C. (Vacuum Assisted Closure) Therapy™ will: "promote granulation tissue formation through the promotion of wound healing; uniformly draw wounds closed by applying controlled, localized negative pressure; remove interstitia fluid allowing tissue decompression; remove infectious materials; provide a closed, moist wound healing environment."

Methods: This report reviews our successful experience with V.A.C. therapy in four pediatric patients where traditional surgical therapies failed.

Results: Two patients, age 2 years, with persistent lymph drainage following resection of large cystic hygroma from the groin and axilla respectively were cured after 14 days and 5 days respectively of V.A.C. therapy. The third patient, age 5 years and post liver transplant, had recurrent deep abdominal wall infected cystic fluid collections that was cured after 5 days of V.A.C. therapy. The fourth patient, aged 14 years, with severe post abdominal trauma compartment syndrome was managed successfully with the large V.A.C. system for 10 days before she succumbed to her injuries.

Conclusions: There are few reports of V.A.C. therapy in pediatrics. This is the first documented experience of V.A.C. therapy for cystic hygroma. It's our impression that V.A.C. therapy is a valuable tool in complex cystic hygroma therapy. Further documented experience is needed.

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THE USE OF FIBRIN GLUE IN THE MANAGEMENT OF INTRACTABLE NEONATAL CHYLOTHORAX

Dr. N. E. Wiseman
Winnipeg Children’s Hospital, University of Manitoba

Neonatal Chylothorax may result from mediastinal lymphatic malformations, lymphangiomatosis, pulmonary lymphangiectasia, or injury to the lymphatic ducts. Secondary effects include large volume fluid loss, lymphopenia, hypoproteinemia, and malnutrition. Conventional treatment includes cessation of enteral feeding, and introduction of parenteral nutrition. The role of surgery is usually considered after failure of medical treatment. Such patients are often protein depleted and malnourished.

We herein present a modified surgical procedure, which has proven successful in the management of intractable Chylothorax in two neonates. Both infants underwent eventual thoracotomy with over-sewing of mediastinal lymphatics as is conventionally described. In addition, the infants had an application of fibrin glue with Surgicell in a multi-layered fashion. This successfully sealed the oozing mediastinal surfaces. In both infants, cessation of lymphatic drainage was achieved, and recovery followed. This technique appears to augment the common procedure carried out in an attempt to stem the tide of lymphatic flow. It may improve the overall successful outcome of surgical treatment of this very difficult problem.

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ASSOCIATION CANADIENNE de CHIRURGIE PÉDIATRIQUE

36ième

Réunion Annuelle

WINNIPEG
30 Septembre - 3 Octobre, 2004
Trente-sixième Congrès Annuel

ASSOCIATION CANADIENNE de
CHIRURGIE PÉDIATRIQUE

30 Septembre - 3 Octobre, 2004

Hôtel Fort Garry
Winnipeg (Manitoba)
CANADA
Cette réunion est accréditée aux fins du maintien de la compétence tel que défini par le Collège Royal des Médecins et Chirurgiens du Canada
PROGRAMME SCIENTIFIQUE ET SOCIAL

Jeudi, le 30 septembre 2004

10:00 - 17:00 Réunion du Conseil de l’ACCP, Salon A
14:00 Inscription
19:00 Réception de Bienvenue – Hotel Fort Garry, The Club

Vendredi, le 1er octobre 2004

07:00 - 12:00 Inscription
07:00 - 07:30 Petit Déjeuner
07:30 - 07:40 Mot de Bienvenue et Ouverture du Congrès
07:40 - 09:20 PREMIÈRE Session Scientifique
09:20 - 09:40 Pause-Santé
09:40 - 10:52 DEUXIÈME Session Scientifique
10:52 - 11:15 Pause-Santé
11:15 - 12:15 Conférence Fred MacLeod / JPS, Dr. Keith Georgeson
18:30 Banquet du Président – Crystal Ballroom

Samedi, le 2 octobre 2004

06:00 - 07:30 Réunion du Comité de Spécialité en chirurgie générale pédiatrique
06:00 - 07:30 Réunion du Comité de Publications
07:00 - 12:00 Inscription
07:00 - 07:30 Petit Déjeuner
07:30 - 08:50 TROISIÈME Session Scientifique
08:50 - 09:10 Pause-Santé
09:10 - 10:46 QUATRIÈME Session Scientifique
10:46 - 11:00 Pause-Santé
11:00 - 11:30 Histoire de Louis Riel – Dr. Frank Guttmann
    “Carnet de voyage” commandité par l’ACCP
    “2 minutes / 2 images”
11:30 - 12:30 Déjeuner d’affaire des Membres

Dimanche, le 3 octobre 2004

07:00 - 09:00 Inscription
07:00 - 07:30 Petit Déjeuner
07:30 - 08:40 CINQUIÈME Session Scientifique
08:40 - 09:10 Pause-Santé
09:10 - 10:06 SIXIÈME Session Scientifique
10:06 - 11:06 SEPTIÈME Session Scientifique
11:00 - 11:15 Remise du Prix du résident pour les meilleures présentations clinique et de recherche. Mot de clôture du président
MOT DE BIENVENUE DU PRÉSIDENT

Bienvenue à Winnipeg,

Le 36ème congrès de l’ACCP porte, cette année, une charge symbolique spéciale, celle de la prévalence de l’amitié et de l’intelligence sur la barbarie. En effet ce congrès remplace celui qui devait se tenir le 14 Septembre 2001 et qui a été annulé en raison des tristes évènements que l’on connaît. Comme par le passé, le congrès de l’ACCP sera une excellente occasion de renouer avec des amis et d’échanger des idées dans une atmosphère des plus agréables.

Cette année, notre conférencier invité sera le Dr Keith Georgeson. En plus d’être une sommité dans le domaine de la chirurgie minimallement invasive, le Dr Georgeson est reconnu pour sa gentillesse et son excellent jugement. Je suis convaincu que la conférence McLeod/JPS qu’il va donner saura faire le point sur les possibilités et les limites actuelles de cette approche.

Le Dr Ray Postuma et son épouse Jane nous ont préparé un programme social exceptionnel qui saura compléter l’excellent programme scientifique préparé par le Dr Ken Shaw et son comité du programme.

Un grand merci à notre fidèle secrétaire-trésorier, Le Dr Peter Fitzgerald, qui travaille très fort pour maintenir la flamme et les intérêts de l’ACCP.

Je nous souhaite un excellent congrès.

Salam Yazbeck M.D.
Président
Association Canadienne de Chirurgie Pédiatricque.
AU SUJET DE L’ASSOCIATION CANADIENNE DE LA CHIRURGIE PÉDIATRIQUE

L’Association canadienne de chirurgie pédiatrique a reçu sa charte en 1967. Son objectif est d’améliorer les soins chirurgicaux aux nouveau-nés et aux enfants du Canada. Elle s’intéresse à tous les aspects de la chirurgie pédiatrique générale et thoracique tout en reconnaissant sa responsabilité unique à l’égard des bébés nés avec des anomalies congénitales et des enfants atteints de tumeurs malignes. Bien que sa responsabilité en matière de traumatismes pédiatriques ne soit pas unique, elle exerce un rôle crucial dans les questions relatives à ces traumatismes.

L’Association canadienne de chirurgie pédiatrique offre la possibilité, particulièrement dans le cadre de son assemblée générale annuelle, d’échanger des informations concernant le diagnostic, le traitement et la recherche liées à ses domaines de travail. De plus, elle assume la responsabilité de participer à l’éducation non seulement de ses propres membres, mais aussi des autres membres de la communauté qui s’intéressent à des aspects apparentés des soins pédiatiques et qui travaillent dans ces domaines.

LE FONDS D’ÉDUCATION : Pour l’aider à remplir ses engagements en matière d’éducation sur les sujets relatifs à la chirurgie pédiatrique, l’association a créé un fonds pour l’éducation. Ce fonds a été établi et continue d’exister grâce à la générosité des individus et des associations, de nature médicale ou autre, intéressées par les soins chirurgicaux aux enfants. L’association sollicite annuellement des dons en faveur de son fonds afin de maintenir un fonds de roulement suffisant pour soutenir les programmes d’éducation approuvés par les membres de l’ACCP. Ce fonds est enregistré auprès du gouvernement fédéral et toutes les contributions sont pleinement déductibles d’impôts. Le fonds fait l’objet d’une vérification comptable annuelle.

Vous pouvez envoyer vos dons à :
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1975-1977  Jim Simpson*  Toronto
1977-1979  Sam Kling  Edmonton
1979-1981  Pierre-Paul Collin  Montréal
1981-1983  Barry Shandling  Toronto
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1987-1989  Alex Gillis  Halifax
1989-1991  Jacques C. Ducharme  Montréal
1991-1993  Sigmund H. Ein  Toronto
1993-1995  Angus Juckes  Regina
1995-1997  Jean G. Desjardins  Montréal
1997-1999  David P. Girvan  London
1999-2002  Ray Postuma  Winnipeg
2002-2003  Mike Giacomantonio  Halifax
2003-  Salam Yazbeck  Montreal

* décédé

SECRÉTAIRES-TRÉSORIERS

1967-1974  Barry Shandling  Toronto
1974-1978  Gordon Cameron  Hamilton
1978-1983  Frank M. Guttman  Montréal
1989-1995  Ray Postuma  Winnipeg
1995-2002  Salam Yazbeck  Montréal
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Le premier CONGRÈS ANNUEL eut lieu le 22 janvier, 1969 à VANCOUVER
LES ARMOIRIES
DE
L’ASSOCIATION CANADIENNE DE CHIRURGIE PÉDIATRIQUE

Le Blason

Au gauche, un bistouri droit entouré d’un serpent alors qu’à droite se tient un enfant, tout argent.

Au sommet se trouvent trois feuilles d’érable ainsi que la date 1967.

Devise: “Je le pensay, Dieu le guarit”.

Description

Le rouge et le violet des armoiries sont les couleurs du Collège Royal des Médecins et Chirurgiens du Canada et représentent le sang artériel et veineux vu au cours de la chirurgie. L’association du bistouri avec le serpent guérisseur d’Esculape ainsi qu’avec l’image d’un enfant en bonne santé symbolise la pratique de la chirurgie pédiatrique.

La couronne du blason est la feuille d’érable du Canada et la date de fondation de notre association (1967).

La devise est une citation d’Ambroise Paré, père de la chirurgie moderne.
ACCP 2005
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CONFEREncIER INVITE

DR. KEITH GEORGESON

Chef de département de chirurgie, The Children's Hospital of Alabama
Professeur de chirurgie, Joseph M. Farley Chair of Pediatric Surgery,
Directeur de la division de chirurgie pédiatrique
Directeur de programme de chirurgie pédiatrique
Faculté de Médecine, Université d'Alabama


Le Dr. Georgeson occupe une place incontournable dans le domaine de la chirurgie minimalement invasive. Il est l'auteur ou le co-auteur de 96 publications dans des revues dotées de comités de pairs, de 6 chapitres de livres, ainsi que d'un livre. Il fait partie du bureau éditorial de plusieurs publications scientifiques.

Le Dr. Georgeson est un chirurgien exceptionnel et il est un véritable pionnier dans le domaine de la chirurgie minimalement invasive.

L'association Canadienne de Chirurgie Pédiatrique est fière d'inviter

DR. KEITH GEORGESON

À donner la conférence annuelle Fred MacLeod / JPS.

La visite du Dr Georgeson est rendue possible grâce à la générosité de Elsevier.
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