CANADIAN ASSOCIATION of PAEDIATRIC SURGEONS

33rd Annual Meeting

WINNIPEG

September 13-16, 2001
Thirty-third Annual Meeting

CANADIAN ASSOCIATION of
PAEDIATRIC SURGEONS

September 13-16, 2001

Hotel Fort Garry
222 Broadway
Winnipeg (Manitoba) CANADA
R3C 0R3

(204) 942-8251
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.

The Royal College of Physicians and Surgeons of Canada has contributed to the sponsorship of our meeting through a National Specialty Society Annual Meeting Grant.
SCIENTIFIC AND SOCIAL PROGRAM

Thursday, September 13, 2001
09:00 - 17:00  Meeting of CAPS Council (Executive)
17:00          Registration
19:00 - 22:00  Welcoming Reception – Hotel Fort Garry

Friday, September 14, 2001
07:00 - 12:00  Registration
07:00 - 08:00  Continental Breakfast
07:30 - 12:00  Exhibits
08:00 - 08:10  Welcome and Opening Ceremony
08:10 - 10:10  Scientific Session ONE
10:10 - 10:40  Refreshment Break
10:40 - 10:55  Lucille Teasdale by Dr. Pierre-Paul Collin
10:55 - 11:40  Fred MacLeod Lecture, Dr. Richard S. Bransford
11:40 - 12:10  Panel on Pediatric Surgery without Borders
12:10 - 13:30  Lunch with panelists
13:30 - 15:06  Scientific Session TWO

Saturday, September 15, 2001
06:00 - 08:00  Specialty Committee in Pediatric General Surgery Meeting
06:00 - 08:00  Publications Committee Meeting
07:00 - 12:00  Registration
07:00 - 08:00  Continental Breakfast
07:30 - 12:00  Exhibits
08:00 - 10:00  Scientific Session THREE
10:00 - 10:30  Refreshment Break
10:30 - 11:22  Scientific Session FOUR
11:22 - 12:30  "2 minutes / 2 slides"
12:30 - 15:00  CAPS Members Business Meeting
18:00          Presidential Reception – Hotel Fort Garry
19:00          Presidential Banquet – Hotel Fort Garry

Sunday, September 16, 2001
07:00 - 09:00  Registration
07:00 - 08:00  Continental Breakfast
07:30 - 09:30  Exhibits
08:00 - 10:00  Scientific Session FIVE
10:00 - 10:30  Refreshment Break
10:30 - 10:45  Resident prizes for excellence in clinical and research presentations
10:45 - 11:45  Scientific Session SIX
11:45          President’s Farewell
Activities available during CAPS 2001

Please also visit the CAPS hospitality suite set up in the Hotel during the meeting to meet friends and obtain more information.

Sites to visit (± within walking distance of Hotel Fort Garry):

The Forks*  http://www.winnipeg-manitoba.com/Town/the-forks.htm
Manitoba Children's* Museum: http://www.childrensmuseum.com/
Old Saint-Boniface* (Winnipeg's) French Quarter
Gabrielle-Roy House
Saint-Boniface Museum
And many more sites

Manitoba Museum of Man (&Woman!) and Nature*: http://www.manitobamuseum.mb.ca
 Including the Hudson Bay collection: http://www.manitobamuseum.mb.ca/hud.htm
 The Planetarium: http://www.manitobamuseum.mb.ca/planet.htm

Winnipeg Exchange* District:
 http://winnipeg.about.com/library/weekly/aa072700a.htm

Winnipeg Art* Gallery: http://wag.mb.ca/

Fort Whyte Centre: http://www.fortwhyte.org/

Dalnavert House*: http://www.mhs.mb.ca/museums/dalnavhp.htm

Manitoba Legislative* Building: http://www.gov.mb.ca/legtour/index.html

Assiniboine Park and Zoo the home of the real Winnie the Pooh!
http://www.city.winnipeg.mb.ca/cms-prod/ape/zoo/old%20stuff/default.htm


Just Outside of Winnipeg:

Lower Fort Garry: http://www.parksCanada.gc.ca/garry/
Mennonite Heritage Village (Steinbach) http://www.mennoniteheritagevillage.mb.ca/
Oak Hammock Marsh: http://www.ducks.ca/ohmic/

Sports and Entertainment


Winnipeg Blue Bombers football: hosting Edmonton at 2PM Saturday September 15, 2001 http://www.cfl.ca/CFL.Winnipeg/home.html

Assiniboine Downs- horse racing

Manitoba Curling Hall of Fame and Museum: http://www.curlmanitoba.org/

Also, check out all about Winnipeg at: http://winnipeg.about.com/
http://www.tourism.winnipeg.mb.ca/
PRESIDENT'S WELCOME

It's very fitting that the 33rd Annual CAPS meeting gathers just a short walk from the historic junction of the Red and Assiniboine Rivers, in the geographic centre of North America. For centuries, peoples from north, south, east and west traveled here on foot and water when there were no borders; later by rail, road and air over borders; and in the future by fibre and the airwaves over "virtual" borders.

"The Forks", as this river junction is known, is where peoples traditionally gather to listen, discuss, decide and celebrate. This CAPS meeting is no exception. For three days we will do this in the best of the CAPS tradition. We will also remember and honor the memory of those that went before and brought us to this point in CAPS' history.

The major theme for this annual meeting is "Pediatric Surgery without borders"/ "Chirurgie Pédiatrique sans frontières". A number of CAPS members have first hand experience practicing Pediatric Surgery in developing countries and will share their stories during this meeting. We will begin this portion of the meeting by remembering and honoring a Canadian surgeon, Doctor Lucille Teasdale, who, although not a CAPS member, devoted and gave her life to surgery patients in Uganda. I am grateful to Doctor Pierre-Paul Collin, a founding CAPS member and one of her teachers, for contributing to this part of the meeting. We also welcome as guest speaker Doctor Richard S. Bransford, from Kenya, whose career parallels that of Doctor Teasdale.

But not all will be work. Do enjoy everything Winnipeg and Manitoba have to offer: cultural diversity; a unique exchange district, the Museum of Man and Nature, including the historic Hudson Bay collection; the world's largest Inuit art collection at the Art Gallery; historic St.Boniface, Canada's largest speaking French community outside of Quebec; sporting events; glorious prairie sunsets, harvest moons and of course much more (see also the activities page of this booklet), all under the skies of a "Friendly Manitoba”.

Welcome to CAPS 2001. Minwenita! Bon congrès! Enjoy! Meegwetch!! Ekosi!

Ray Postuma M.D.
President
Canadian Association of Paediatric Surgeons
ABOUT THE
CANADIAN ASSOCIATION OF PAEDIATRIC SURGEO NS

The Canadian Association of Paediatric Surgeons was granted its charter in 1967. Its main aim is to improve the surgical care of infants and children in Canada.

There are three main areas, diagnosis, treatment and research, which are of special concern to the members.

Infants Born with Congenital Abnormalities

Even though the majority of newborn infants who have severe congenital abnormalities can be treated successfully by a surgical operation, often the condition is either not recognized, or if it is diagnosed, the local physician may be unaware of the possibilities for surgical cure. In this situation most of these babies die, or some survive to live a life crippled by their deformity.

Malignancy in Childhood

Cancer is the second most common cause of death in childhood. Surgical removal of the tumor, combined with X-radiation and chemotherapy provided by an aggressive team utilizing new techniques can achieve a cure in over 50% of these patients.

Trauma

Finally, the number one killer of children in North America is accidents. Here again, with modern methods of first aid, transportation, resuscitation, intensive care, and specialized surgical team effort, many of these seriously injured children can be saved.

Education Program

To accomplish an improvement in surgical care for babies and children, the Canadian Association of Paediatric Surgeons has launched an educational program for doctors, nurses and others working in the paediatric health field. To support this program, an educational fund has been established.
The role of the Education Fund is to promote continuing medical education of the members of the Canadian Association of Pediatric Surgeons, education of medical and surgical specialists, of trainees and of the public about pediatric surgical illnesses and their prevention. Financing for the Education Fund has been obtained from individuals and groups, both medical and non-medical, interested in the surgical care of children, and from foundations. It is the intent of the Association to increase the capital funding to a level where the annual interest will fully support the Education Program.

The Education Fund of the Canadian Association of Paediatric Surgeons is registered with the Federal Government and all contributions are fully tax deductible. The Fund is audited annually.

Donations may be sent to:

Salam Yazbeck, M.D.
CAPS Secretary-Treasurer
Hôpital Sainte-Justine
3175 Côte Ste. Catherine
Montreal (Quebec) CANADA
H3T 1C5

Telephone    (514) 345-4688
Fax          (514) 345-4964
E-mail       Secretary@caps.ca
# PRESIDENTS

<table>
<thead>
<tr>
<th>Years</th>
<th>Name</th>
<th>City</th>
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<tbody>
<tr>
<td>1967-1973</td>
<td>Harvey Beardmore</td>
<td>Montreal</td>
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<tr>
<td>1973-1975</td>
<td>Colin Ferguson*</td>
<td>Winnipeg</td>
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<tr>
<td>1975-1977</td>
<td>Jim Simpson*</td>
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<tr>
<td>1977-1979</td>
<td>Sam Kling</td>
<td>Edmonton</td>
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<tr>
<td>1979-1981</td>
<td>Pierre-Paul Collin</td>
<td>Montreal</td>
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<td>Barry Shandling</td>
<td>Toronto</td>
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<td>1983-1985</td>
<td>Gordon Cameron</td>
<td>Hamilton</td>
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<tr>
<td>1985-1987</td>
<td>Stanley Mercer</td>
<td>Ottawa</td>
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<td>1987-1989</td>
<td>Alex Gillis</td>
<td>Halifax</td>
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<tr>
<td>1991-1993</td>
<td>Sigmund H. Ein</td>
<td>Toronto</td>
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<td>1993-1995</td>
<td>Angus Juckes</td>
<td>Regina</td>
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<td>1995-1997</td>
<td>Jean G. Desjardins</td>
<td>Montreal</td>
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<td>1997-1999</td>
<td>David P. Girvan</td>
<td>London</td>
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<tr>
<td>1999-2001</td>
<td>Ray Postuma</td>
<td>Winnipeg</td>
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<tr>
<td>2001-2003</td>
<td>Mike Giacomantonio</td>
<td>Halifax</td>
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* indicates deceased

# SECRETARY-TREASURERS

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<td>Frank M. Guttman</td>
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<td>1989-1995</td>
<td>Ray Postuma</td>
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<td>1995-2001</td>
<td>Salam Yazbeck</td>
<td>Montreal</td>
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<tr>
<td>2001-</td>
<td>Peter G. Fitzgerald</td>
<td>Hamilton</td>
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FOUNDING MEMBERS

ALLEN Michael
ASHMORE Phillip
BEARDMORE Harvey
CAMERON Gordon
COLLIN Pierre-Paul
DESIARDINS Jean G.
DUCHARME Jacques C.
DUVAL Frederick
FALLIS James
FERGUSON* Colin
GILLIS Alex
GUTTMAN Frank M.
JUCKES Angus
KARN* Gordon
KENNEDY Richard
KLIMAN Murray
KLING Samuel
MARSHALL Donald
MARSHALL Russell
MERCER Stanley
MURPHY David
OWEN* Herbert
SHANDLING Barry
SHRAGOVITCH* 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, sinister 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".
FUTURE C.A.P.S. MEETING

34th Annual Meeting
September 20-23, 2002
The Westin Bayshore, VANCOUVER

www.westinbayshore.com

Nestled on the shores of prestigious Coal Harbour, directly adjacent to the famous 1,000 - acre Stanley park, The Westin Bayshore Resort & Marina Vancouver enjoys panoramic mountain, ocean and city views, as well as direct access to downtown Vancouver's most popular business, shopping and entertainment districts.
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. The Program Committee normally tries to schedule the Residents papers during the first two days of the meeting to enable the awarding of the Residents Prizes during the Presidential Dinner.

WINNERS OF THE 2000 RESIDENT BEST PAPER AWARDS

BEST CLINICAL RESEARCH PAPER

Dr. David J. HACKAM

"Mechanism of pediatric trauma deaths in Canada and the United States: The role of firearms"
D.J. Hackam, M.V. Mazziotti, R.H. Pearl, A.L. Winthrop, M. Kreller, J.C. Langer
The Hospital for Sick Children, Toronto (Ontario) CANADA
St.Louis Children's Hospital, St.Louis MO U.S.A.

BEST BASIC SCIENCE RESEARCH PAPER

Dr. Ioana BRATU

"Pulmonary artery remodeling after reversible tracheal occlusion in diaphragmatic hernia"
I. Bratu, H. Flageole, J.M. Laberge, M.F. Chen, B. Piedboeuf
McGill University Health Center, The Montreal Children's Hospital
Montreal (Quebec) CANADA

CONTRATULATIONS DRS. HACKAM AND BRATU!
WINNERS OF THE 2000 RESIDENT BEST PAPER AWARDS

BOOK PRIZE – ASHCRAFT TEXTBOOK

Dr. Adriana S. CONDELLLO

"Pediatric trauma registries: The foundation of quality care"
A.S. Condello, H.J. Hancock, M. Hoppensack, M. Tenenbein, T. Charylky-Stewart,
D. Kirwin, J. Williamson, C. Findlay, M. Moffatt, N. Wiseman, R. Postuma
University of Manitoba, Winnipeg (Manitoba) CANADA

SUBSCRIPTION TO JOURNAL OF PEDIATRIC SURGERY

Dr. John GILICK

"Intestinal neuronal dysplasia: Results of treatment in 33 patients"
J. Gillick, H. Tazawa, P. Puri
Children's Research Centre, Our Lady's Hospital for Sick Children
Crumlin, Dublin IRELAND

SUBSCRIPTION TO SEMINARS IN PEDIATRIC SURGERY

Dr. Paul WALES

"Long-term outcome after nonoperative management
of complete traumatic pancreatic transection in children"
P. Wales, B. Schuckett, P.C.W. Kim
The Hospital for Sick Children, Toronto (Ontario) CANADA

CONTRATULATIONS DRs. CONDELLLO, GILICK AND WALES!
GUEST LECTURER

Doctor Richard S. Bransford, M.D.

The visit by Doctor Richard Bransford is made possible with the financial support of the Royal College of Physicians and Surgeons of Canada.

Doctor Bransford received his M.D. degree in 1967 from the Johns Hopkins School of Medicine, and his general surgical training from the University of Nebraska Medical Center. After completing two years with the United States Air Force, he completed a Diploma in Tropical Medicine in Antwerp, Belgium. He then joined Africa Inland Mission as a career missionary surgeon, serving in that capacity in the Democratic Republic of Congo, in the Comoro Island, and for the past 23 years, in Kenya.

Despite his general surgical training, Doctor Bransford long-time vision of surgical care for Kenya's disabled children finally resulted in the opening of East Africa's first hospital dedicated to the specialized interdisciplinary surgical care of children will all types of disabilities. He has been since 1998 the medical director of the thus established Bethany Crippled Children's Centre in Kijabe, Kenya and the Samaritans Purse Hospital in Lui, Southern Sudan.

Doctor Bransford is member of several North American and African societies and associations. He is married and has 7 children.

The Canadian Association of Pediatric Surgery is pleased to invite

DOCTOR RICHARD S. BRANSFORD

As a speaker of the Royal College of Physicians and Surgeons of Canada

to give the Fred MacLeod Annual Lecture.
His talk is entitled: "A BURDEN FOR AFRICA'S CHILDREN"
PRINTING OF THE PROGRAM BOOKLET AND PART OF THE SOCIAL PROGRAM WERE MADE POSSIBLE WITH THE FINANCIAL SUPPORT OF THE FOLLOWING SPONSORS

Astra Zeneca

Baxter Corporation

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Harcourt Health Sciences

Stryker Canada

W.B. Saunders Company

Wyeth-Ayerst Canada Inc.
## EXECUTIVE

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Year</th>
</tr>
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<tbody>
<tr>
<td>President</td>
<td>R. Postuma</td>
<td></td>
</tr>
<tr>
<td>Past-President</td>
<td>D. Girvan</td>
<td></td>
</tr>
<tr>
<td>Secretary-Treasurer</td>
<td>S. Yazbeck</td>
<td></td>
</tr>
<tr>
<td>Director (3rd year)</td>
<td>M. Giacomantonio</td>
<td></td>
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<tr>
<td>Director (2nd year)</td>
<td>J. Langer</td>
<td></td>
</tr>
<tr>
<td>Director (1st year)</td>
<td>R. Eccles</td>
<td></td>
</tr>
</tbody>
</table>

## COMMITTEES

### Archivist
- S. Ego
- R. Postuma

CAPS trouble
- R. Postuma

### Bilingual
- A. Ounjet
- M. Lailier
- S. Leebec
- P. Monopets
- S. Wantrop

### Constitution and Bylaws
- J. Bass
- J. Baerg
- H. Lau
- G. Miller
- K. Pippas

### Education
- D. Poenaru
- K. Chun
- A. Hayashi
- M. Lailier
- D. Loeff
- G. Miller
- B. Smith
- E. Welsch
- D. Wesson
- N. Yamnau

### Ethics, Moral and Legal Issues
- N. Grace
- E. Dykes
- A. Fecteu
- M. Hoffman
- J. Janik
- S. Kleinhaus
- J. Murphy

### Finance
- N. Wiseman
- J. Bass
- L.T. Nguyen
- D. Poenaru (Education)
- S. Yazbeck (Secretary-Treasurer)

### Future Meetings
- President (R. Postuma)
- Secretary-Treasurer (S. Yazbeck)

### Local arrangements:
- R. Postuma 2001
- G.K. Blair 2002

### Meeting co-ordinator:
- Arlene Finn

### Liaison with American College
- J.M. Laberge

### Membership and Credentials
- L.A. Scott
- T. Basil
- S. Chou
- G. Les
- E. Skarsgard

### Nominating
- D. Girvan
- M. Di Lorenzo (3rd year)
- B.J. Hancock (2nd year)
- M. Evans (1st year)

### Publication
- M. Di Lorenzo
- D. Crotton
- A. Fecteu
- H. Flagore
- A. Hayashi
- P.l. Lanks
- S. Robin
- D. Sigalit
- M. Walton

### Research
- P. Kim
- A. Fecteu
- T. Jokes
- A. Piero
- D. Sigalit
- R. Sommio

### Specialty Committee in Pediatric General Surgery (of the Royal College)
- J.M. Laberge
- G.K. Blair
- M. Giacomantonio
- A. Gillis
- A. Hayashi
- J. Langer
- S. Rubin
- E. Wiener
- R. Keith
- R. Postuma
- A. Jukes
- P. Fitzgerald
- D. St-Vil
- D. Price

### Underline indicates chair of committee

Please contact the President or Secretary-Treasurer if you are able to serve on any of the above committees or if corrections are necessary in the above information.
VISIT OUR WEBSITE

www.caps.ca
PROGRAM SCHEDULE

PROGRAMME DÉTAILLÉ

ABBREVIATIONS

O  original 8-minute paper
R  resident's paper
C  4-minute case/technique report

O,R  Adjudicated
C  Not adjudicated
THURSDAY, SEPTEMBER 13, 2001

HOTEL FORT GARRY

09:00 - 17:00  Meeting of CAPS Council (Executive)
              Salon C

17:00  Registration
       Outside the meeting room, Concert Hall (7th floor)

19:00 - 22:00 Welcoming Reception
            Hotel Fort Garry – The Club
FRIDAY, SEPTEMBER 14, 2001

HOTEL FORT GARRY

07:00 - 12:00  Registration
               Outside the meeting room, Concert Hall (7th floor)

07:00 - 08:00  Continental Breakfast
               Vestibule of the Concert Hall

07:30 - 12:00  Exhibits
               Vestibule of the Concert Hall

08:00 - 08:10  Welcome and Opening Ceremony
               President, Dr. Ray Postuma

08:10 - 10:10  Scientific Session ONE
               Concert Hall

10:10 - 10:40  Refreshment Break
               Vestibule of the Concert Hall

10:40 - 10:55  Lucille Teasdale by Dr. Pierre-Paul Collin

10:55 - 11:40  Fred Mac Leod Lecture
               Doctor Richard S. Bransford Bethany Crippled Children's Centre, Kenya
               "A burden for Africa's children"

11:40 - 12:10  Panel on Pediatric Surgery without Borders

12:10 - 13:30  Lunch with panelists
               Crystal Ballroom

13:30 - 15:06  Scientific Session TWO
               Concert Hall
FRIDAY, SEPTEMBER 14, 2001

SCIENTIFIC SESSION ONE
Hotel Fort Garry
Concert Hall

08:00 Welcome and Opening Ceremony
Dr. Ray Postuma

<table>
<thead>
<tr>
<th>Time</th>
<th>CO-CHAIRMEN</th>
<th>Title</th>
<th>Authors/Institutes</th>
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<tbody>
<tr>
<td>08:10</td>
<td>Dr. G.K. Blair, Dr. D. Pocanaru</td>
<td>ESOPHAGEAL FOREIGN BODY OBSTRUCTION FOLLOWING ESOPHAGEAL ATRESIA REPAIR</td>
<td>A. Ziruman, S. Yaxbeck, Hôpital Sainte-Justine, Montreal (Quebec), Canada</td>
</tr>
<tr>
<td>08:22</td>
<td></td>
<td>USE OF MITOMYCIN C IN THE CONSERVATIVE TREATMENT OF SHORT ESOPHAGEAL STENOSIS: PRELIMINARY RESULTS</td>
<td>O. Reinhart, S. Yaxbeck, A. Abela, P. Monnier, University Hospital of Lausanne, Lausanne, Switzerland, Hôpital Sainte-Justine, Montreal (Quebec), Canada</td>
</tr>
</tbody>
</table>

4-minute DISCUSSION
RECONNECTING THE OBSTRUCTED ESOPHAGUS
USING A RADIOFREQUENCY WIRE
N.E. Wiseman, B.A. Love, N. Vistam
Children’s Hospital, Winnipeg (Manitoba) CANADA
Montreal Children’s Hospital, Montreal (Quebec) CANADA
Baylis Medical Company, Mississauga (Ontario) CANADA

4-minute DISCUSSION

A NOVEL TREATMENT OF CONGENITAL DUODENAL WEB:
IMAGE-GUIDED TREATMENT OF CONGENITAL
AND ACQUIRED STENOSIS IN CHILDREN
A. Hayes-Jordan, P. Cluit, M. Temple, D. Gibbs, P.C.W. Kim,
The Hospital For Sick Children
Toronto (Ontario) CANADA

4-minute DISCUSSION

GASTROESOPHAGEAL INTUSUSCEPTION:
A NEW CAUSE OF ESOPHAGEAL OBSTRUCTION IN CHILDREN
J. Lukish, L. Henry, B. Markle, M. Eichelberger
Children’s National Medical Center
Washington, DC U.S.A.

4-minute DISCUSSION

GASTRIC VOLVULUS FOLLOWING LAPAROSCOPIC NISSEN FUNDOPLICATION
WITH GASTROSTOMY
K.A. Kupersier, P.J. Wolfson, S.G. Murphy
A.I. duPont Hospital for Children and Thomas Jefferson University Hospital
Wilmington, Delaware and Philadelphia, PA U.S.A.
09:02 09:06 7  C R  VASCULAR ANOMALIES ASSOCIATED WITH CONGENITAL CYSTIC LESIONS OF THE LIVER  
S. Fecteau, M. Bourque, M. Ergin, E. Gillian  
Connecticut Children Medical Center  
Hartford, CT, U.S.A.

09:10 09:18 8  O  TELEHEALTH PROVIDES EFFECTIVE PEDIATRIC SURGERY CARE TO REMOTE LOCATIONS  
G.O. Miller, K. Levesque  
University of Saskatchewan, Saskatchewan (Saskatoon), Canada

09:22 09:30 9  O  THE EFFECT OF AN OUTREACH SPECIALIST PAEDIATRIC SERVICE ON ACCESS AND OUTCOME FOR CHILDREN WITH SURGICAL CONDITIONS  
G. Arzio, K. Maote, S. Beasley  
Christchurch Hospital  
Christchurch, New Zealand

09:34 09:42 10  O  A YOUNG AMERICAN PEDIATRIC SURGEON'S EXPERIENCES IN ROMANIA: MUCH TO BE TAUGHT, MUCH TO BE LEARNED  
E.D. McGahan  
University of Virginia Health System  
Charlottesville, VA, U.S.A.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<td>O. Reinberg, B.J. Meynet, P. Frey, N. Lutz, J. Hohlfeld</td>
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<td></td>
<td>University Hospital of Lausanne</td>
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<td>Lausanne SWITZERLAND</td>
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<td>INTERNATIONAL COOPERATION IN PAEDIATRIC SURGERY -</td>
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<td>THE NEED FOR A WORKING PARTY ON PRIMARY PAEDIATRIC SURGERY</td>
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<td>H.A. Heij</td>
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<td>Emma Kinderziekenhuis AMC</td>
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<td>Lucille Teasdale by Dr. Pierre-Paul Collin</td>
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<td>Fred MacLeod Lecture</td>
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<td>Dr. Richard S. Bransford</td>
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<td>&quot;A burden for Africa's children&quot;</td>
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<td>11:40</td>
<td>Panel on Pediatric Surgery without Borders</td>
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<td>Lunch with panelists</td>
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SATURDAY, SEPTEMBER 15, 2001

HOTEL FORT GARRY

06:00 - 08:00  Specialty Committee in Pediatric General Surgery Meeting (Dr. Jean-Martin Laberge) Corporate Suite 1
06:00 - 08:00  Publications Committee Meeting (Dr. Maria Di Lorenzo) Corporate Suite 2
07:00 - 12:00  Registration Outside the meeting room, Concert Hall (7th floor)
07:00 - 08:00  Continental Breakfast Vestibule of the Concert Hall
07:30 - 12:00  Exhibits Vestibule of the Concert Hall
08:00 - 10:00  Scientific Session THREE Concert Hall
10:00 - 10:30  Refreshment Break Vestibule of the Concert Hall
10:30 - 11:22  Scientific Session FOUR Concert Hall
11:22 - 12:30  "2 minutes / 2 slides" Concert Hall
12:30 - 15:00  CAPS Members Business Meeting Gateway Room
18:00  Presidential Reception Hotel Fort Garry, Mezzanine
19:00  Presidential Banquet Hotel Fort Garry, Provencher Room
**SATURDAY, SEPTEMBER 15, 2001**

**SCIENTIFIC SESSION THREE**  
Hotel Fort Garry  
Concert Hall

**CO-CHAIRMEN**  
Dr. B.D. Kenney  
Dr. J.M. Giacomantonio

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<th>Authors</th>
<th>Institution(s)</th>
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<tr>
<td>08:00</td>
<td>22</td>
<td>EFFECTS OF NEONATAL ENDOTOXAEALIA ON HEART AND KIDNEY FATTY ACID OXIDATION</td>
<td>K. Fukumoto, A. Pernro, L. Spitz, S. Eaton</td>
<td>Institute of Child Health and Great Ormond Street Hospital for Children</td>
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<td>London, UNITED KINGDOM</td>
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<td>08:12</td>
<td>23</td>
<td>NEUTROPENIC ENTEROCOLITIS (TYPHLITIS) AFTER BONE MARROW TRANSPLANT</td>
<td>A. Al-Qattabi, C. Barker, R. Anderson, D.L. Sigale</td>
<td>University of Calgary and Alberta Children’s Hospital</td>
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<td>Calgary (Alberta), CANADA</td>
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<td>08:24</td>
<td>24</td>
<td>MONOCYTE AND NEUTROPHIL ACTIVITY AFTER MINOR SURGICAL STRESS</td>
<td>C. Romeo, A. Crucetti, A. Turiaco, F. Impellizzeri, N. Turiaco, C. Di Bella, M.V. Merlin, S. Cifala, C. Gentile and D.C. Salpietro</td>
<td>University of Messina, Messina, ITALY</td>
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25 OR
08:36
08:44

INTESTINAL ENERGY METABOLISM AFTER ISCHAEMIA-REFUSION:
EFFECTS OF MODERATE HYPOTHERMIA AND PERFLUOROCARBON
P. Veichepipat, E. Proctor, D.G. Gadian, A. Petros, A. Ramsey, L. Spitz, A. Pierro
Institute of Child Health and Great Ormond Street Hospital
London UNITED KINGDOM

26 OR
08:48
08:56

T CRYPTANANTGEN ACTIVATION IS ASSOCIATED
WITH ADVANCED NECROTIZING ENTEROCOLITIS (NEC)
N. Hall, E.O.P. Ong, N. Ade-Ajayi, L. Fasoli, M. Ververidis, E.M. Kiely,
D.P. Drake, L. Spitz, I. Hanna, Q. Mok, A. Pierro
Institute of Child Health and Great Ormond Street Hospital for Children
London UNITED KINGDOM

27 OR
09:00
09:08

NEW STRATEGIES IN NON-OPERATIVE MANAGEMENT OF MECONIUM ILEUS
M.S. Burke, J.M. Ragi, H.L. Karamanoukian, M. Kotter, D.S. Borowitz,
M.E. Ryan, M.S. Irish, P.L. Glick
Children’s Hospital of Buffalo, State University of New York at Buffalo
Buffalo, NY U.S.A.

28 OR
09:12
09:20

EXPERIMENTAL SMALL BOWEL OBSTRUCTION IN CHICK EMBRYOS:
EFFECTS ON THE DEVELOPING ENTERIC NERVOUS SYSTEM
E. Schibneg, D. Kluth
University Hospital Eppendorf
Hamburg GERMANY
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<th>Authors/Institutions</th>
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| 09:24 | OR 29   | MIDGUT ATRESIAS RESULT FROM ABNORMAL DEVELOPMENT OF NOTOCHORD IN ADRIAMYCIN RAT MODEL (ARM) | J. Gillese, S. Giles, J. Bannigan, P. Puri  
Children's Research Centre, Our Lady's Hospital for Sick Children  
Dublin, IRELAND |
| 09:36 | OR 30   | EPIDERMAL GROWTH FACTOR IMPROVES OUTCOME IN A RAT MODEL OF SHORT BOWEL SYNDROME | J. Shum, G. Martin, J.B. Meddings, D.L. Sigalet  
University of Calgary and Alberta Children's Hospital  
 Calgary (Alberta), CANADA |
J.M. Garcia-Arenzana, P. Aldazabal  
Hospital Donostia  
San Sebastián, SPAIN |

10:00  
Refreshment Break  
10:30
SATURDAY, SEPTEMBER 15, 2001

SCIENTIFIC SESSION FOUR
Hotel Fort Garry
Concert Hall

CO-CHAIRMEN
Dr. S. Yazbeck
Dr. P.C.W. Kim

10:30
10:34
32 CR
A MINIMALLY INVASIVE APPROACH TO BILE DUCT INJURY FOLLOWING BLUNT LIVER TRAUMA
N. Church, G. May, D. Sigalet
University of Calgary and Alberta Children’s Hospital
Calgary (Alberta) CANADA

3-minute DISCUSSION

10:38
10:46
33 OR
EVALUATION OF SCOOTER RELATED INJURIES IN CHILDREN
A. Mankovsky, C. Cardinaux, M. Mendosa-Sagast, J. Hohlfeld, O. Reinberg
University of Lausanne
Lausanne SWITZERLAND

3-minute DISCUSSION

10:50
10:58
34 OR
MANAGEMENT OF ACUTE PAIN IN CHILDREN: CHANGES IN ATTITUDES AND PRACTICES BETWEEN 1991 AND 2000
L.J. Falanga, S. Lafrenaye, S.K. Mayer, J.P. Tétrault
University of Sherbrooke, CHUS-Fleurimont
Sherbrooke (Quebec) CANADA

3-minute DISCUSSION
11:02 - 11:06
BILATERAL NEONATAL ADRENAL ABSCESS - REPORT OF TWO CASES AND REVIEW OF DIAGNOSIS AND MANAGEMENT
C. Romeo, F. Arena, A. Crucetti, P. Impellizzeri, A. Centonze, G. Romeo
University of Messina
Messina, ITALY

11:10 - 11:18
THE SPECTRUM OF SURGICAL PROCEDURES IN CHILDREN WITH CEREBRAL PALSY: A POPULATION-BASED STUDY
D. Poenaru, S. Gmara
Queen’s University School of Medicine
Kingston (Ontario), CANADA

11:22
"2 minutes / 2 slides"

12:30
CAPS Members Business Meeting

15:00
Gateway Room
SUNDAY, SEPTEMBER 16, 2001

HOTEL FORT GARRY

07:00 - 09:00  Registration
              Outside the meeting room, Concert Hall (7th floor)

07:00 - 08:00  Continental Breakfast
               Vestibule of the Concert Hall

07:30 - 09:30  Exhibits
               Vestibule of the Concert Hall

08:00 - 10:00  Scientific Session FIVE
               Concert Hall

10:00 - 10:30  Refreshment Break
               Vestibule of the Concert Hall

10:30 - 10:45  Resident prizes for excellence in clinical and research presentations

10:45 - 11:45  Scientific Session SIX
               Concert Hall

11:45          President's Farewell
SUNDAY, SEPTEMBER 16, 2001

SCIENTIFIC SESSION FIVE
Hotel Fort Garry
Concert Hall

CO-CHAIRMEN  DR. G.G. Miller  DR. S.H. Chou

08:00  37  O  
08:08  PERCUTANEOUS EMBOLIZATION OF VARICOCELE IN CHILDREN - A CANADIAN EXPERIENCE
A.R. Al-Oshani, S. Yazbeck, L. Garel, J. Dubois
Hôpital Sainte-Justine, Montreal (Quebec) CANADA

4-minute DISCUSSION

08:12  38  O  
08:20  LAPAROSCOPIC SURGERY FOR PEDIATRIC VARICOCELES: RANDOMIZED CONTROLLED TRIAL
V.V. Podkamenev, V.N. Shalmakhovich, P.S. Utkov, A.A. Soloviev,
V.P. Iljin, A. Podkamenev
City Children's Hospital
Irkutsk RUSSIA

4-minute DISCUSSION

08:24  39  O  
08:32  PREDICTORS OF RECURRENT IN WILMS' TUMOUR
British Columbia's Children's Hospital and The University of British Columbia
Vancouver (British Columbia) CANADA

4-minute DISCUSSION
08:36 40 OR
BLUNT RENAL TRAUMA – BLESSING IN DISGUISE?
P. Choppa, D. St-Vil, S. Yazbeck
Hôpital Sainte-Justine
Montreal (Quebec) CANADA

08:48 41 CR
ABNORMALITIES OF C-KIT POSITIVE CELLULAR NETWORK IN ISOLATED HYPOGANGLIONOSIS
U. Rolle, V. Solaro, A. Yoneda, P. Puri

08:56 42 CR
NEOSTIGMINE FOR THE TREATMENT OF PEDIATRIC ACUTE COLONIC PSEUDO-OBSTRUCTION
S. Gnojek, D. Poenaru, E. Tsai
Queen’s University School of Medicine
Kingston (Ontario) CANADA

09:04 43 CR
SUCCESSFUL OPERATIVE MANAGEMENT OF SOLITARY RECTAL ULCER SYNDROME IN A CHILD
D.C. Little, S.H. Fritcher, S. Webb, D.R. Conney
Texas A & M University Health Science Center
Temple, TX U.S.A.
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<tr>
<td>09:24</td>
<td>09:32</td>
<td>LAPAROSCOPIC APPENDECTOMY IN SIMPLE AND COMPLICATED PEDIATRIC APPENDICITIS: A FAVORABLE ALTERNATIVE</td>
<td>A.N. Meguerditchian, P. Prasil, R. Cloutier, S. Leduc, J. Peloquin, G. Rey</td>
<td>Centre Hospitalier de l’Université Laval, Sainte-Foy (Quebec) CANADA</td>
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<td><strong>4-minute DISCUSSION</strong></td>
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<td>Resident prizes for excellence in clinical and research presentations</td>
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**SUNDAY, SEPTEMBER 17, 2000**

**SCIENTIFIC SESSION SIX**
Hotel Fort Garry
Concert Hall

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<td>10:30</td>
<td>46</td>
<td>THE TECHNIQUE OF LAPAROSCOPIC REDUCTION OF INTUSSUSCEPTION FOLLOWING INCOMPLETE REDUCTION WITH GAS ENEMA&lt;br&gt;<strong>G. Azzie, K. Mcate, S. Beanley</strong>&lt;br&gt;Christchurch Hospital&lt;br&gt;Christchurch, NEW ZEALAND</td>
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<tr>
<td>10:38</td>
<td>47</td>
<td>PARTIAL SPLENECTOMIES BY LAPAROSCOPY IN CHILDREN&lt;br&gt;<strong>O. Reiners</strong>&lt;br&gt;University Hospital of Lausanne&lt;br&gt;Lausanne, SWITZERLAND</td>
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<td>10:50</td>
<td>48</td>
<td>516 LAPAROSCOPIC HERNIOTOMIES IN BOYS: SENSE OR NON-SENSE?&lt;br&gt;A MULTICENTRIC STUDY&lt;br&gt;<strong>P. Montes, F. Schier, G. Beyrouthy, C. Esposito</strong>&lt;br&gt;CHU Bicètre-Paris XI, Paris, FRANCE&lt;br&gt;University Medical Center, Jeans, GERMANY&lt;br&gt;Magna Graecia University of Catanzaro, ITALY</td>
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Routine Pathological Evaluation of Pediatric Inguinal Hernias

G.G. Miller, S.E. McDonald, K. Milbrandt, R. Chibbar
University of Saskatchewan
Saskatoon (Saskatchewan) CANADA

Variability of Inguinal Hernia Surgical Technique: A Survey of North American Pediatric Surgeons

M.A. Levitt, D. Ferraraccio, M.C. Arbesman, G.F. Briseaux, M.G. Carty, P.L. Glick
Children's Hospital of Buffalo, State University of New York at Buffalo
Buffalo, NY U.S.A.

Coaching Surgical Residents Using Operative Video Replay

G.K. Blair, J. Dinsmore, K.E. Al-Harbi, E.M. Webber, J.J. Murphy
British Columbia Children's Hospital
Vancouver (British Columbia) CANADA

President's Farewell
ABSTRACTS

RÉSUMÉS

ABBREVIATIONS

O original 8-minute paper
R resident’s paper
C 4-minute case/technique report

O,R Adjudicated
C Not adjudicated
1. Session One  Friday  08:10  OR

ESOPHAGEAL FOREIGN BODY OBSTRUCTION FOLLOWING ESOPHAGEAL ATRESIA REPAIR

A. Zigman, S. Yazbeck
Hôpital Sainte-Justine
Montreal (Quebec) CANADA

Background/Purpose: To determine the incidence of, and risk factors for esophageal foreign body obstruction (EFBO) following esophageal atresia / tracheoesophageal fistula (EA/TEF) repair.

Methods: Case-control chart review from 1987 to 1999.

Results: EFBO occurred in 14 of 108 patients (13%) with EA/TEF. Mean follow-up was 31 months. Alimentary debris was the most common foreign body. Mean time between operation and EFBO was 25 months. EFBO recurred in 50%. Sixty-one percent of cases required endoscopic FB removal. Esophageal stenosis was present in at least 57% of EFBO patients, and 89% of stenoses presented initially with EFBO. The incidence of gastroesophageal reflux (GER) (50%), type C anomaly (100%), anastomotic leak (21%), major associated anomalies (50%), and encephalopathy (14%) were not significantly different between the EFBO group and the total EA/TEF population. There was no difference in the need for anti-reflux surgery (57%) between those with EFBO and GER, and the total EA/TEF population with GER.

Conclusions: Esophageal foreign body obstruction occurs in at least 13% following EA/TEF repair. No reliable risk factors were identified which could predict foreign body obstruction, therefore all families should be warned about this possibility during the first five years, particularly once the child begins eating solid foods.

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E-mail: salam_yazbeck@ssss.gouv.qc.ca
USE OF MITOMYCIN C IN THE CONSERVATIVE TREATMENT OF SHORT ESOPHAGEAL STENOSIS: PRELIMINARY RESULTS

Q. Reinberg, S. Yazbeck
University Hospital of Lausanne, Lausanne SWITZERLAND
Hôpital Sainte Justine, Montreal (Quebec) CANADA

Purpose: Mitomycin C, is an antibiotic-cytostatic drug similar to antialkylant agents, known for inhibiting fibroblasts proliferation. It is used in oncology but has a poor antimitotic effect. It has been used with success by ENT for recurrent tracheal stenosis, and in ophthalmology for the treatment of refractory glaucoma and pterygium surgery. We report our experience in the treatment of 2 short caustic esophageal stenosis in children aged 6 and 7,5 years.

Methods and results: The first one presented an unique short (2 cm) and narrow stenosis of the mid esophagus after swallowing soda. A 2 years program of 29 dilatations allowed for normal feeding. However, several impactions occurred on a recurrent stenosis in spite of different techniques of dilatations. In March and July 2000, we proceeded with topical applications of 2 mg of Mitomycin C Kyowa® after dilatations. With a follow up of 9 mo, this child remains symptom free and has a normal esophagram. The second patient swallowed 2 lithium batteries at 22 months of age and presented with a short proximal oesophageal stenosis that was dilated 14 times during the following ten months unsuccessfully. An attempted surgical repair failed and dilatations were resumed. He underwent 13 other dilatations and always became symptomatic within 2 to 3 weeks. In October 2000 and in January 2001 topical Mitomycin C was applied after dilatations. He had no symptom for 6 weeks after the first dilatation. He is now symptom free, eating steak and french fries 3 months after his second dilatation, although a significant stenosis is still observable on barium swallow.

Conclusions: These preliminary results are encouraging and warrant a trial of Mitomycin C in the control of recurrent esophageal stenosis in children. However a longer follow up is obviously needed.

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E-mail: olivier.reinberg@chuv.hospvd.ch
RECONNECTING THE OBSTRUCTED ESOPHAGUS USING A RADIOFREQUENCY WIRE

N.E. Wiseman, B.A. Love, N. Visram
Children's Hospital, Winnipeg (Manitoba) CANADA
Montreal Children's Hospital, Montreal (Quebec) CANADA
Baylis Medical Company, Mississauga (Ontario) CANADA

An 1144 gram premie (Spitz class 1) with wide gap esophageal atresia and distal tef underwent delayed primary anastomosis under significant tension. Postoperative leak with stricture formation resulted in complete luminal obliteration as confirmed by endoscopy and contrast esophogram. Reestablishment of esophageal continuity was achieved using a radiofrequency wire with endoscopic and biplane fluoroscopic guidance. Subsequent balloon and Tucker dilatation resulted in functional continuity of the esophagus. This marks the first application of radiofrequency wire technology to treat esophageal obstruction and supplants the need for repeat thoracotomy with its attendant morbidity.

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E-mail: nwiseman@hsc.mb.ca
A NOVEL TREATMENT OF CONGENITAL DUODENAL WEB: IMAGE-GUIDED TREATMENT OF CONGENITAL AND ACQUIRED STENOSIS IN CHILDREN

The Hospital For Hospital Sick Children
Toronto (Ontario) CANADA

Purpose: Image guided pneumatic dilatation of congenital or acquired stenosis of small and large intestine in children has not been previously reported. Here we report the safety and efficacy of pneumatic dilatation of congenital and acquired small and large intestinal stenosis.

Methods: Retrospective analysis of 8 children less than two years old between and 1994 and 2001 with small or large intestinal stenosis who underwent pneumatic dilatation is reported. In one patient, we use this novel approach in management of a congenital duodenal web.

Results: Case#  Age  Diagnosis  Type  Location  Outcome  Complication
1  11d  duodenal web  short  duodenum  successful  no
2  7mo  NEC  short  desc. Colon  successful  minor
3  20mo  anast. strict  short  dist. ileum  successful  no
4  6mo  NEC/anast  short  desc. Colon  successful  no
5  7mo  NEC  long  sigmoid  unsuccessful  no
6  7mo  NEC/anast  short  sigmoid  successful  no
7  7mo  anast  short  ileum  successful  no
8  4mo  NEC  short  Asc. Colon  successful  no

NEC = Necrotizing enterocolitis; anast. = anastomosis; strict. = stricture; short<1cm; long>1cm

The complication in patient number 2 was a localized perforation treated with 72 hours of intravenous antibiotics. Patient number 5 required operative resection of a long (5 centimeters) stricture.

Conclusions: Pneumatic dilatation of congenital or acquired short small bowel and colonic stenosis can be performed safely and efficaciously in selected patients. With development of new image guided technology and expertise, the application of this treatment may be broadened.

Senior author:
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Toronto (Ontario) CANADA
M5G 1X8
Phone: (416) 813-6357  Fax: (416) 813-7477
E-mail: peter.kim@sickkids.on.ca
GASTROESOPHAGEAL INTUSSUSCEPTION:  
A NEW CAUSE OF ESOPHAGEAL OBSTRUCTION IN CHILDREN

J. Lukish, L. Henry, B. Markle, M. Eichelberger
Children’s National Medical Center
Washington, DC U.S.A.

Purpose: Gastrointestinal intussusception with obstruction is common in the small bowel and colon; however, such a process is not known to cause esophageal obstruction. Recent experience with gastroesophageal intussusception permits discussion of diagnosis and consideration of treatment options.

Method: A 3 year old, previously asymptomatic African American boy, presented with acute onset of salivation, regurgitation of food and abdominal pain. Physical examination revealed epigastric tenderness and salivation. Chest x-ray showed a posterior mediastinal fullness. However, a barium swallow documented a smooth crescent filling-defect, which caused obstruction of the esophagus at the level of the carina with proximal esophageal dilatation. Axial computed tomography of the thorax demonstrated a soft tissue mass of the distal esophagus. Esophagoscopy confirmed occlusion of the midesophagus with the mucosa intact. A right thoracotomy permitted visualization of dilated proximal esophagus and a palpation of an intraluminal mass in the distal esophagus. Mobilization of the distal esophagus and gentle manual pressure cleared the obstruction to a point below the diaphragm. Following a normal intraoperative esophagram, final treatment consisted of a longitudinal esophagomyotomy.

Results: The child recovered without complication and continues without recurrence for 10 months. Esophagogastroscope at 2 months following surgery revealed a normal esophagus and stomach.

Conclusion: This is the first report of gastrointestinal intussusception of the esophagus in children. Management by thoracotomy, manual reduction and esophageal myotomy re-established intestinal continuity and appears to eliminate recurrence; fundoplication or gastropexy may be alternative options. Pre-operative recognition of gastroesophageal intussusception may allow hydrostatic reduction and or treatment by minimally invasive surgery.

Sponsoring CAPS member: Dr. Kenneth S. Shaw
Senior author:
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111 Michigan Ave N.W.
Washington, DC 20010-2970 U.S.A.
Phone: (202) 884-2151 Fax: (202) 884-4174
E-mail: jlukish@cnmc.org
GASTRIC VOLVULUS FOLLOWING LAPAROSCOPIC NISSEN FUNDOPICATION WITH GASTROSTOMY

K.A. Kuenzler, P.J. Wolfson, S.G. Murphy
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A case report of a 13-year-old boy who developed organoaxial gastric volvulus four months after a laparoscopic Nissen fundoplication and placement of gastrostomy is presented. Intraoperative findings were significant for volvulus about an axis defined by two fixation points, one at the fundoplication site and the other in the area of the gastrostomy tube, which was positioned close to the pylorus. Of the nearly one hundred pediatric cases in the literature, only eight describe volvulus as a complication subsequent to gastric surgery, and just one case has been reported after laparoscopic Nissen fundoplication. Our patient illustrates that fundoplication and gastrostomy, the recommended treatment for gastric volvulus, does not preclude its development, and may sometimes encourage it. We conclude that the increasing numbers of surgeons who perform laparoscopic Nissen fundoplication should not only consider this rare, potentially fatal emergency when evaluating postoperative complaints, but also intraoperatively when selecting a location for gastrostomy to ensure three-point fixation.

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VASCULAR ANOMALIES ASSOCIATED WITH CONGENITAL CYSTIC LESIONS OF THE LIVER

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Background: Large congenital cystic malformations of the liver are rare occurrences in pediatric patients. Compounded with these may be very unusual vascular anomalies which may complicate surgical management if not foreseen.

Methods: Two congenital cystic hepatic lesions were reviewed for their unusual presentation, pathological findings, and abnormal vascular supplies.

Results: Case #1: A 5 y. o. boy presented with a large asymptomatic abdomen since birth. Ultrasound and CT showed a cystic lesion replacing the right lobe of the liver. UTS Doppler studies were distorted by mass. CT Angiography and Angiography were useless. Right heptectomy was followed by transient hypotension and portal hypertension. A secondary laparotomy found a middle hepatic vein obstructed by a web and an atretic left hepatic vein. The web was resected and the left hepatic was patched to the middle hepatic. The child remains asymptomatic four years out after resection of a cystadenoma. Case #2: Pre-natal ultrasound showed large right hepatic cyst. Initial laparotomy revealed a mesenchymal hamartoma which drained bile. Intra-op doppler ultrasound showed three portal veins and four hepatic veins and an extended right heptectomy was done uneventfully at two months of age at second laparotomy.

Conclusion: Unusual vascular supplies may accompany congenital liver cysts.

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TELEHEALTH PROVIDES EFFECTIVE PEDIATRIC SURGERY CARE TO REMOTE LOCATIONS

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Purpose: The aim of this study was to document the experience and patient satisfaction of providing pediatric surgery consultations and follow-up appointments to remote locations via audiovisual telecommunications technology.

Methods: From January 2000 to April 2001 sixteen consecutive pediatric general surgery clinics were reviewed for the type of patient (new or review), the diagnosis, the adequacy and accuracy of the evaluation, and the ability to formulate a plan. In the first year, first time users (patients) were requested to complete a satisfaction survey of 15 questions. Responses to 13 questions were recorded on a 4-point scale and 2 questions required a yes or no response.

Results: 118 appointments were scheduled. 20 patients cancelled. There were 45 new patient consultations. 33 patients were scheduled for surgery of which 21 are completed and 12 are pending. There were no cancellations. There were 42 patients seen in 53 follow-up sessions. 36 surveys of a possible 53 were available for analysis. The mean rating of the overall treatment experience at Telehealth was 3.47 (95% confidence interval 0.17). 100% responded they would use Telehealth again and would recommend it to another person.

Conclusions: Telehealth is an effective and acceptable way to provide Pediatric General Surgery clinics to remote locations.

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THE EFFECT OF AN OUTREACH SPECIALIST PAEDIATRIC SERVICE ON ACCESS AND OUTCOME FOR CHILDREN WITH SURGICAL CONDITIONS

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Background: Until 1996 paediatric surgery in the South Island (SI) of New Zealand was performed predominantly by adult general surgeons. Since then a specialist paediatric surgical service based in Christchurch has provided an outreach service to the more remote hospitals. This study reviews the effect of this service on children requiring surgery.

Methodology: Key parameters of paediatric surgical practice and surgical outcomes were identified and reviewed. Changes in referral practice were documented. The steps involved in developing an outreach service were identified.

Results: Since 1996, virtually all SI tertiary paediatric surgery has been performed by the two Christchurch-based paediatric surgeons. Duodenal perforation during pyloromyotomy has dropped from 31% to <2%. Increased use of attempted enema reduction of intussusception, the frequency of surgery from 53% to 13%. The median age at diagnosis and time to definitive diagnosis surgery in Hirschsprung's disease has decreased from 30 weeks to less than one week. Herniotomies are being performed at a younger age. Average length of stay has decreased from 2-3 days to 0.7 days. Mean duration of stay after appendicectomy has declined from 72 hours to 52 hours. There has been a marked increase in tertiary referrals to Christchurch, and an increase in operations performed outside Christchurch by paediatric surgeons.

Conclusions: The availability of a SI specialist paediatric surgical service has influenced the practice of paediatric surgery and improved patients' outcome. A regular specialist outreach service to the smaller cities for clinics and surgery has improved access for children to specialist services.

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A YOUNG AMERICAN PEDIATRIC SURGEON'S EXPERIENCES IN ROMANIA: MUCH TO BE TAUGHT, MUCH TO BE LEARNED

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This author has participated in surgical practice and education during four visits to Romania between 1994 and 2000. Communication with my Pediatric Surgical colleagues has been ongoing during this time. The initial visit was under the auspices of Operation Smile; the second was a personal invitation; and the third and fourth under the auspices of Children-Surgical Aid International (CSAI-formerly Surgical Aid to Children of the World-SACOW). My activities have included performing surgery as a primary surgeon and assistant, providing lectures to pediatric surgeons, residents and medical students, consulting on ward and clinic rounds, presenting at the Romanian Congress of Pediatric Surgeons meeting, and performing feasibility studies for future comprehensive teaching activities. I have also provided equipment and books to my colleagues whenever possible. My activities have allowed me to learn about the difficulties in providing quality pediatric surgical care in Romania. This is highlighted by examples such as: a) operating on a child with TEF successfully without suction, cautery, or adequate lighting, only to have the child develop pneumonia 4 days later and succumb because of inadequate medicine and nursing, b) seeing an infant with cloacal extrophy receive no surgical care because of inadequate supporting facilities, c) constant re-use of gloves, endotracheal tubes, and other basic equipment due to unavailability, d) and inadequate text and literature resources. Overall, training, funds and facilities fall short of need. On the other hand, I developed a great respect for how much these surgeons can achieve in such poor working conditions, and was humbled to think that I would not be able to achieve nearly as much. As such, the opportunities for teaching in Romania, and the opportunities for learning from these colleagues abound. It would be my honor to share some of these thoughts and experiences with the members of the Canadian Association of Pediatric Surgeons.

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CO OPERATION IN SURGICAL CARE FOR CHILDREN IN WEST AFRICA

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For more than 25 years our Department has welcomed children from developing countries in collaboration with the Foundation "Terre des Hommes". Since 1988, we organized cooperative missions in the West African countries, aimed to promote a better follow-up of operated children, to enhance the know-how of local teams, and to assure the best choice of treatment for the patients.

Since 1994, each year our team organises 1 or 2 missions, which last about 15 days and involve 2 pediatric surgeons, 1 anesthesiologist and 1 or 2 nurses (anesthesiology). Children are selected to be operated on locally, or to be transferred to our institution for major procedures. We collaborate with local surgeons and nurses and give them a theoretical and practical teaching. During each mission about 150 children are seen and 30 to 40 undergo surgery. Special grants have allowed 5 surgeons and 2 nurses to improve their knowledge among us.

During the past 5 years, about 38 children have been annually transferred to our institution for surgery, i.e. 6.6% of our hospitalizations. The cases selected for transfer must permit surgery within a reasonably short stay and a low-cost affordable postoperative treatment. For example, 12 to 14 esophagoplasties for caustic burns are performed in our Dept. each year. The mean stay in our country is 112.5 days, including a mean hospital stay of 23 days.

This surgical co-operation allows children from developing countries to benefit from surgical care they would otherwise not obtain, and our residents to acquire skills in broader fields including personal enrichment in a very different approach to health care.

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INTERNATIONAL COOPERATION IN PAEDIATRIC SURGERY –
THE NEED FOR A WORKING PARTY ON PRIMARY PAEDIATRIC SURGERY

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Aim: The practice of paediatric surgery in developing countries is a challenge to paediatric surgeons in affluent countries. What can they do to improve the surgical services to children in the third world?

Method: Data on the paediatric surgical workload in a large rural mission hospital were collected and analysed.

Results: These statistics show that the children admitted with surgical infections and trauma outnumbered those with congenital malformations and malignancies by 5:1. The outcome of children with trauma and infections was often worsened by delayed presentation and/or initial mismanagement. Lack of proper training and facilities at primary care and district level can be blamed for this. Also, public awareness of surgical conditions in children is minimal or absent. Limited facilities for specialised paediatric surgery enabled the operative treatment of conditions like Hirschsprung's disease, imperforate anus and nephroblastoma by using of adapted methods. E.g. an umbilical clamp instead of a stapler was used in Duhamel's operation.

Discussions with paediatric surgeons in several SubSaharan African countries confirmed the overall picture that many children suffer unnecessarily from surgical conditions, resulting in mortality, morbidity and lifelong invalidity.

Proposal: There is need for protocols and guidelines for the initial management of trauma and surgical infections in children at primary care and district level. Training programs should be developed and evaluated. At the same time, research into appropriate technology in paediatric surgical conditions should be carried out. For these purposes a working party on primary paediatric surgery should be constituted.

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EFFECT OF PRENATAL GLUCOCORTICOIDS AND POSTNATAL NITRIC OXIDE INHALATION ON SURVIVAL OF NEWBORN RATS WITH NITROFEN-INDUCED CONGENITAL DIAPHRAGMATIC HERNIA

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Background: Pulmonary hypertension and pulmonary hypoplasia account for the high mortality associated with CDH. Previous studies demonstrated (1) better survival in animals receiving inhaled nitric oxide (NO) postnatally (2) improved lung compliance after antenatal glucocorticoids. In this study we evaluated the combined effect of prenatal glucocorticoids and postnatal NO-inhalation on survival of newborn rats with nitrofen-induced CDH.

Methods: CDH was induced by maternal application of a single oral dose (100mg) of nitrofen on day 11.5 of pregnancy. Antenatal dexamethasone (DEX: 0.25mg/kg) was injected intraperitoneally in group III and IV on day 18.5 and 19.5. Control animals (group I + II) received vehicle alone. After spontaneous delivery, animals were exposed to NO (80 ppm) (groups II+IV) or room air (groups I+III). Animals were monitored until sacrifice at 12h of age. Extend of herniation was assessed microscopically.

Results: In 398 out of 491 (81%) newborn rats CDH were observed. All animals with hernia sizes > 50% of the thoracic cavity died within 4h after birth, irrespective of treatment. In hernias < 50%, only 2 of 16 (12.5%) animals of the control group I survived compared to 14 of 23 (60.9%) of the NO treatment group II (p<0.01), 25 of 36 (69.4%) of the DEX group III (p<0.01) and 20 out of 21 (95,2%) animals of the combined group IV (p<0.001).

Conclusion: Combination of prenatal glucocorticoids and postnatal NO-inhalation significantly improved survival of newborn rats with nitrofen-induced CDH.

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GLUCOCORTICOID RECEPTORS GENE EXPRESSION IN THE HYPOPLASTIC LUNG OF NEWBORNS WITH CONGENITAL DIAPHRAGMATIC HERNIA

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Background/Purpose: In experimentally produced congenital diaphragmatic hernia (CDH), antenatal glucocorticoids have been shown to improve morphological and biochemical lung immaturity and normalise the thickened pulmonary vascular wall. The action of glucocorticoids on a target tissue is mediated by glucocorticoid receptors (GRs) which has two isoforms, GRα binds glucocorticoids and acts as a ligand-dependent transcription factor and GRβ does not bind glucocorticoids and acts as an inhibitor of GRα. The aim of this study was to examine the expression of GR gene and its isoforms in the CDH lung.

Methods: RNA was extracted from archival lung tissue of patients (mean age 3.5 days) with CDH. Five age-matched newborns (mean age 13.5 days) with sudden death syndrome served as control. Reverse transcriptase (RT) and nested polymerase chain reaction (PCR) was performed using primers specific to the common region of GR, GRα and GRβ. Soluble enzyme immunohistochemistry was carried out using polyclonal antibodies to GR and GRα.

Results: Relative mRNA levels of GR, GRα and GRβ as detected by RT-PCR were significantly increased in CDH lung compared to controls. GRα immunoreactivity confined only to the cytoplasm of the cells was markedly increased in the endothelium and smooth muscle cells in the CDH lung compared to controls.

Conclusion: The findings of increased mRNA expression of GR and particularly of its isoforms GRα and GRβ in the CDH lung suggests that GR may play an important role in regulating target cell responsiveness to glucocorticoids in the hypoplastic lung.

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FETAL TRACHEAL OCCLUSION TO TREAT LUNG HYPOPLASIA ASSOCIATED WITH CONGENITAL DIAPHRAGMATIC HERNIA: ROLE OF EXOGENOUS SURFACTANT AT BIRTH IN THE OVINE MODEL

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Background/Purpose: Prophylactic administration of surfactant prior to the first breath has been shown to improve survival and gas exchange in CDH lambs. The goal of this study was to assess the effects of prophylactic exogenous surfactant in surgically created CDH lambs with or without fetal tracheal occlusion (TO) over an 8 hour resuscitation period.

Methods: 24 lambs were divided into 5 groups: (a) CDH (n=5); (b) CDH+surfactant (SURF) (n=4); (c) CDH+TO (n=5); (d) CDH+TO+SURF (n=6) and (e) non-operated controls (n=4). A left sided CDH was created in fetal lambs at 80 d; TO was done at 108 d and delivery by hysterotomy was done at 136 days (term = 145 d). Bovine lipid extract surfactant (BLES) was administered prior to the first breath and at 4 hours of life.

Results: All CDH+SURF lambs, but only 3/5 CDH lambs, survived the entire 8 hours. Both CDH and CDH+SURF lungs were hypoplastic with lung weight/body weight (LW/BW) ratios of 1.11±0.12% and 0.99±0.14% respectively. The addition of TO+SURF increased the LW/BW (2.39±0.42% and 2.14±0.23%) and were similar to controls (1.73±0.04%). Gas exchange, as measured by arterial pH, PaCO₂ and PaO₂, was not significantly improved with the addition of surfactant. Ease of ventilation, as measured by VEI and MVI, also did not improve significantly. Mean airway pressures (MAP) were significantly lower in the SURF groups with CDH+TO+SURF consistently having the lowest mean airway pressures. Exogenous surfactant did not increase the incidence of pneumothoraces.

Conclusions: Prophylactic administration of surfactant prior to the first breath and at 4 hours of life does not significantly improve gas exchange or ventilation in surgically created CDH lambs with or without TO. However, the reduction in MAP could decrease the amount of barotrauma in groups receiving surfactant. Fetal TO yields the best results in terms of postnatal lung function, likely acting via surfactant independent mechanisms.

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THE IMPACT OF CHANGING NEONATAL RESPIRATORY MANAGEMENT ON EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO) UTILIZATION

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Background: The introduction of inhaled nitric oxide (NO) and high frequency oscillatory ventilation (HFO) has had a profound effect on the use of ECMO for respiratory failure in neonates without congenital diaphragmatic hernia (CDH). The purpose of this study was to evaluate the changes in the demographics and outcome of non-CDH neonates who underwent ECMO for hypoxic respiratory failure.

Methods: All neonates without CDH or cardiac causes of respiratory failure who underwent ECMO between January 1 1989 and January 1 2001 were reviewed. Patients were separated into three, 4 year periods for comparison. Data was examined using analysis of variance (ANOVA) and contingency table analysis. Results: 499 neonates underwent ECMO in the study period. Data for 342 ECMO neonates (68.5%) who had no CDH or cardiac cause for respiratory failure is summarized in the table below.

<table>
<thead>
<tr>
<th>Period</th>
<th>n</th>
<th>GA (%)</th>
<th>BWt (kg)</th>
<th>OI</th>
<th>iNO</th>
<th>HFO (hrs)</th>
<th>AgeE (hrs)</th>
<th>LOE (hrs)</th>
<th>Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>172(76%)</td>
<td>39</td>
<td>3.22</td>
<td>59.6</td>
<td>0</td>
<td>15(8.7%)</td>
<td>40.5</td>
<td>154.7</td>
<td>151(87.8%)</td>
</tr>
<tr>
<td>B</td>
<td>114(64%)</td>
<td>39</td>
<td>3.30</td>
<td>62.2</td>
<td>26(23%)</td>
<td>70(61%)</td>
<td>58.3</td>
<td>193.0</td>
<td>98(86.0%)</td>
</tr>
<tr>
<td>C</td>
<td>56(60%)</td>
<td>40</td>
<td>3.38</td>
<td>59.9</td>
<td>55(98%)</td>
<td>50(89%)</td>
<td>68.5</td>
<td>174.5</td>
<td>51(91.1%)</td>
</tr>
<tr>
<td>P</td>
<td>&lt; 0.01</td>
<td>NS</td>
<td>NS</td>
<td>&lt; 0.01</td>
<td>&lt; 0.01</td>
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<td>&lt; 0.01</td>
<td>&lt; 0.01</td>
<td>NS</td>
</tr>
</tbody>
</table>

Period: A 1989-1992, B 1993-1996, C 1997-2000; GA: Gestational age (weeks); BWt: Birth weight (kg); OI: oxygen index; iNO: inhaled nitric oxide prior to ECMO; HFO: high frequency oscillatory ventilation prior to ECMO; AgeE: age of onset of ECMO; LOE: Length of ECMO.

Conclusions: With the increasing use of iNO and HFO, the absolute number of non-CDH non-cardiac neonates with hypoxic respiratory failure requiring ECMO has decreased. Initiation of ECMO has become progressively later likely due to later referral to the ECMO center and the use of these rescue therapies. Although the use of iNO and HFO is associated with a delay in initiating ECMO and subsequent longer ECMO runs, the overall survival remains unchanged.

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INTRAOPERATIVE ULTRASOUND REDUCES ECMO CATHETER MALPOSITION REQUIRING SURGICAL CORRECTION

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Background/purpose: Two hundred cannulation procedures for extracorporeal membrane oxygenation (ECMO) have been performed at our institution since 1994. Prior to 1996, our practice had been to position these catheters by clinical assessment. Correct placement was confirmed postoperatively by adequate flow of the ECMO circuit and by chest radiograph. From 1997 to the present, we have utilized ultrasound guidance during the cannulation procedure to confirm proper tip position intraoperatively. This retrospective analysis was undertaken to establish whether this practice has significantly reduced the rate of surgical repositioning of ECMO catheters in these patients.

Methods: Operative reports for all infants who underwent ECMO cannulation procedures at our institution were reviewed. From 1994 to 1996, ultrasound was not used to position ECMO catheters. From 1997 to the present, intraoperative ultrasound has been employed routinely. Number of infants requiring surgical intervention to adjust catheter placement were totaled. Repositioning of the patient to manipulate tip position or circuit flow was not considered a significant intervention. Statistical significance was determined using chi-square analysis.

Results: Of the 71 ECMO cannulations performed in 1994 and 1995, nine necessitated surgical repositioning. Since 1997, only three of the 98 procedures have required reoperation. This represents a reduction the rate of surgical repositioning from 13% to 3% of cannulations (p=0.36).

Conclusion: We advocate utilization of intraoperative ultrasound imaging to optimize the position of ECMO catheters, thereby avoiding the potential morbidity of repeat neck dissection and catheter manipulation in these anticoagulated patients.

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THORACOCOPICALLY ASSISTED CENTRAL VENOUS ACCESS: A CASE REPORT

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Purpose: A technique in which thoracoscopy allowed percutaneous placement of a catheter into the azygous system in a patient with severe veno-occlusive disease is described.

Methods: A 2 1/2 year old patient, who had previously undergone many access procedures, required a new line. Non-invasive studies revealed thrombosis of the left internal jugular (IJ), left subclavian (SCL) and both iliofemoral venous systems. The right IJ and SCL veins were deemed to be patent. At surgery, neither vessel could be utilized. Thoracoscopy was performed, revealing a patent azygous vein. Under thoroscopic visualization, the 2nd intercostal vein was percutaneously cannulated, and a guidewire was passed centrally. A port was implanted on the anterior chest, and the catheter was tunneled subcutaneously to the posterior cannulation site. Under thoroscopic visualization, the dilator and introducer were inserted over the guidewire into the intercostal vein, and the catheter was inserted into the right atrium via the intercostal and azygous veins.

Results: Excellent flow through the catheter was achieved. The port has been used for daily factor VII injections for over 1 year without complications or change in postition.

Conclusions: Thoroscopic visualization allowed percutaneous access to the azygous vein. This innovative technique may be useful in achieving central venous access in the patient with severe veno-occlusive disease.

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COMPLICATIONS ASSOCIATED WITH CENTRAL LINE REMOVAL IN THE PEDIATRIC POPULATION

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Background: There are many reports on the complications that occur at the time of insertion and during the life of central venous indwelling catheters. However, there is no literature that describe the complications that occur at the time of removal of these lines.

Methods/results: A review of 136 central line (Broviacs (B), Porta Caths (PC) and Hickmans (HC) removals during the last 5 years was undertaken. 97% were removed following completion of chemotherapy and 3% due to sepsis or malfunction. Three PC broke at the time of removal resulting in a length of line remaining in the central venous system (the SVC, innominate vein and brachio-cephalic subclavian junction). Two lines were inserted by a cut down technique into the external jugular and one line by the percutaneous technique in to the subclavian vein. At follow-up none of the residual lines were associated with thrombus formation and none showed any evidence of migration.

Conclusions: This review identifies a specific problem that can occur with central line removal. Both the long-term affects of residual catheter with in the central venous system or the or the need to remove the foreign body has yet to be addressed.

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A 10 YEAR EXPERIENCE WITH PYRIFORM SINUS ANOMALIES

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Background: Third and fourth branchial remnants may result in pyriform sinus fistulae. These anomalies are extremely rare and challenging.

Methods: The charts of patients diagnosed with a branchial anomaly between January 1991 and December 2000 at the Montreal Children's Hospital were reviewed. All cases of 3rd and 4th branchial remnants/pyriform sinus fistulae were identified. Presentation, imaging, treatment, follow up and recurrence were recorded.

Results: Nine patients with a pyriform sinus anomaly were identified ranging in age from 1.5 to 13 years. Eight anomalies were left-sided and one right-sided. Presenting symptoms were an asymptomatic cervical mass (4), tender mass (4), and one incidental cyst found on MRI. U/S was useful in suggesting the diagnosis in 8 cases. Barium swallow was performed in 5 patients, with 4 positive and 1 false negative. Pharyngoscopy demonstrated the internal opening in 4 of 7 patients. A portion of the thyroid gland was resected in 5 patients. Two patients have not yet undergone a definitive procedure. In 2 other cases where pathology did not confirm a branchial remnant after the first operation, recurrence occurred.

Conclusion: The diagnosis and management of pyriform sinus anomalies are challenging. U/S, barium swallow and pharyngoscopy are all useful in our experience. The portion of thyroid in proximity to the fistula should be excised en-bloc with the inflammatory mass and tract, which must be ligated at the level of the pharynx to minimize recurrence.

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A GIANT FETAL CERVICAL TERATOMA MANAGED BY PRENATAL CYST ASPIRATION AND THE EXIT PROCEDURE

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Background: The ex-utero intrapartum treatment (EXIT) procedure has been used in cases of known or suspected fetal airway obstruction. Maintaining fetoplacental circulation to the baby during Cesarean section allows sufficient time to secure an airway safely without hypoxic compromise.

Case Report: A female fetus was diagnosed with a giant left cervical teratoma on prenatal ultrasound at 18 weeks gestation. Prenatal cyst aspiration and amnioreduction were required on multiple occasions. At 32 3/2wks, with the mass measuring 17cm x 10cm x 7.5cm, cyst aspiration was performed (300cc), followed by the EXIT procedure. With deep maternal anesthesia allowing full uterine relaxation, the baby’s head and neck were exteriorized through a large hysterotomy. Laryngoscopy was performed and an endotracheal tube was positioned just above the carina under flexible bronchoscopy guidance. The umbilical cord was then cut and the baby delivered. After an initial period of stabilization, the mass was resected. The left carotid artery and internal jugular vein were entering the mass and thus sacrificed. The left vagus nerve was not visualized. The final weight of the mass was 1.1 kg and that of the baby 1.6 kg. Post-operatively she has suffered from a left vocal cord palsy and gastroesophageal reflux necessitating a fundoplication. Discharged home at 3 months of age, she is doing well and taking some feeds by mouth.
EFFECTS OF NEONATAL ENDOTOXAEMIA ON HEART AND KIDNEY FATTY ACID OXIDATION

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Background/Purpose: Heart and kidney are dependent on fatty acids during the neonatal period and are both affected in sepsis-related multiple organ failure. Our purpose was to determine the effects of sepsis on cardiac and renal carnitine palmitoyl transferase I (CPTI), important in control of fat oxidation.

Methods: Suckling rats were injected with lipopolysaccharide (endotoxaemia) or saline (controls) and mitochondria isolated from heart and kidney after 2h. CPTI activity was measured radiochemically and M- and L- CPTI isoforms, both present in heart, by immunoblotting. Results were compared by t-tests.

Results: CPTI activity (n=30) was significantly decreased by endotoxaemia in heart (14.4±4.6 nmol/min/U citrate synthase vs. 10.4±4.5, p=0.0007) but not kidney (20.7±7.3 vs. 19.2±8.1). Lower heart CPTI activity was not due to decreased immunoreactive protein (neither M- nor L- CPTI isoform was decreased in amount; n=14). To determine whether free-radicals generated in heart during sepsis could directly inhibit CPTI, control heart mitochondria were incubated with free-radical-generating systems. Hydrogen peroxide did not affect CPTI activity but superoxide, nitric oxide and peroxynitrite significantly inhibited CPTI activity (p<0.001, n=13).

Conclusions: CPTI activity is significantly impaired, possibly by free radical damage, in heart, but not kidney, during neonatal sepsis. Anti-oxidant strategies could prevent sepsis-related cardiac damage.

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NEUTROPENIC ENTEROCOLITIS (TYPHLITIS)  
AFTER BONE MARROW TRANSPLANT  
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Background and purpose: Neutropenic enterocolitis (typhlitis) is a common consideration following bone marrow transplant. This study reviewed our experience with abdominal pain and typhlitis in an active bone marrow transplant program.  
Methods: The Pediatric Bone Marrow Transplant Program Database was reviewed for patients presenting with abdominal pain and typhlitis.  
Results: From 1993 to 2001 a total of 142 transplants have been done. Of these 97 developed abdominal pain, and 6 had radiologically confirmed typhlitis. Non specific abdominal pain developed typically on the fifth ± 1.6 days’ post transplant while patients developing typhlitis were diagnosed on day 15.5 ± 7. Abdominal pain patients were typically continued on prophylactic antibiotics, consisting of Acyclovir, Fluconazole and Septra. Patients with confirmed typhlitis were treated with broad-spectrum antibiotics including antifungal therapy, plus GCSF. Typhlitis resolved after 7 ± 1.2 days’. Surgical intervention was not required, and no patients died with typhlitis.  
Conclusion: Abdominal pain is a common symptom following bone marrow transplant, however typhlitis is relatively rare and surgical intervention was not required in this series. Broad-spectrum (including fungal) antibiotic therapy appears to be an effective treatment for typhlitis in this patient population.  

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MONOCYTE AND NEUTROPHIL ACTIVITY AFTER MINOR SURGICAL STRESS

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Background/Purpose: Surgical stress produces changes in the immune status of patients. To examine the effects of minor surgery on immune response by analysing monocyte and neutrophil phagocytosis and oxidative burst activity in response to minor operations.

Methods: Sixteen patients undergoing minor surgery were enrolled (age range 8 months-13 years). Blood samples were collected at time of induction of anaesthesia (tStart), at the end of operation (tEnd) and 72 hours after surgery (tFinal). Monocyte and neutrophil phagocytosis and oxidative burst activity were studied using as stimulus Escherichia Coli and analysed by flow cytometry. Data were expressed as mean ± SEM and analysed by paired t-test.

Results: Phagocytosis (Fig.1) and oxidative respiratory burst (Fig.2) increased significantly at the end of the operation (tEnd), both in monocytes (11.6% and 27% respectively) and neutrophils (7.4% and 14.3% respectively). At tFinal, 72 hours after surgery, the increase was only significant for monocytes (17.5%). White cell count did not show any significant changes.

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25. Session Three  Saturday  08:36  OR

INTESTINAL ENERGY METABOLISM AFTER ISCHAEMIA-REPERFUSION:
EFFECTS OF MODERATE HYPOTHERMIA AND PERFLUOROCARBON

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Background/Aims: Intestinal ischaemia-reperfusion (IR) is common in paediatrics. This study investigated the potential therapeutic roles of moderate hypothermia and extraluminal oxygenated PFC on intestinal metabolism during IR.

Methods: Rats underwent 30 min intestinal ischaemia + 60 min reperfusion. Four groups were studied, n=8/group: A) sham operation at normothermia (36-38°C); B) IR at normothermia; C) IR at moderate hypothermia (30-32°C); D) IR with oxygenated PFC given extraluminally during ischaemia. Intestinal phosphocreatine, ATP and lactate were measured. Histological changes were scored. ANOVA (metabolites) and a nonparametric test (score data) were used.

Results: Intestinal IR at normothermia caused marked drops in phosphocreatine and ATP with an increase in lactate. Moderate hypothermia exerted beneficial effects (P<0.01) by attenuating the phosphocreatine and ATP depletion as well as the lactate elevation. Extraluminal oxygenated PFC administration during ischaemia failed to produce a protective effect on phosphocreatine and ATP although it reduced lactate accumulation. Histology showed that moderate hypothermia significantly decreased the mucosal damage (P=0.001) whereas extraluminal oxygenated PFC was not effective.

Conclusion: Moderate hypothermia protects the small intestine from IR both biochemically and histologically. Administration of extraluminal oxygenated PFC during ischaemia was not protective. This observation opens to new treatment strategies for intestinal IR injuries.

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T CRYPTANTIGEN ACTIVATION IS ASSOCIATED WITH ADVANCED NECROTIZING ENTEROCOLITIS (NEC)

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Thomas-Friedenreich cryptantigen activation (TCA) exposes neonates with NEC to the risk of haemolysis following transfusion of blood products.

Aims: To determine the prevalence of TCA in neonates with NEC and to correlate TCA with severity of disease and outcome.

Methods: 104 neonates with NEC were tested for TCA on admission. Patients with TCA requiring transfusion were given packed red cells, low titre anti-T fresh frozen plasma and washed platelets to avoid haemolysis.

Results: 23 infants had TCA and 96% of these had stage III disease. The incidence of TCA was significantly higher in infants with stage III disease compared with those with stage II (30% vs. 4%; p<0.01). 91% of infants with TCA required laparotomy compared with 81% of those with no activation. At laparotomy widespread disease was more common in the TCA group (71% vs. 55%). TCA did not significantly increase mortality (TCA 39% vs. no TCA 28%); this may reflect the transfusion policy of our unit.

Conclusions: 22% of neonates with NEC referred to our unit had TCA. There is an association between TCA and advanced NEC. Screening of neonates with advanced NEC for TCA is advised to identify those at risk of haematological complications.

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NEW STRATEGIES IN NON-OPERATIVE MANAGEMENT OF MECONIUM ILEUS

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Purpose: Although non-operative management is often the first intervention attempted with meconium ileus (MI), there is unfortunately a rather high failure rate. In an attempt to improve upon the unacceptable failure rate of non-operative treatment, our aim was to develop new non-operative strategies with the implementation of various enema solutions of different chemical and physical properties.

Methods: Constipation was induced in 27 adult male Swiss Webster mouse models via subcutaneous morphine injection. Groups of constipated mice each received an enema solution containing either a single surface tension reducing agent [perfluoron (PFC), surfactant (surf), Tween-80 (T80)], or a liquefying agent [Gastrografin (Gastro), Golytely (Gol), DNase (D), N-Acetylcysteine (NAC), Viokase (V)] or normal saline (NS) as a control. After the enema solution was administered, stool output was quantitated to determine the efficacy of each enema solution. In addition, for the purpose of assessing for intestinal changes that may be attributed to enema solution toxicity, a histological examination of the small and large bowels was performed on a second group of 36 mice that also received enemas. Finally, meconium from healthy, full term, human newborns was collected and in vitro viscosity measurements were taken with a Brookfield viscometer at baseline and following variable incubation periods with each test solution.

Results: For relieving constipation in vivo, Gastrografin enema was most efficacious, followed by NS and surfactant respectively. All agents were equally benign to the intestinal mucosa upon histological examination of the tissue. In vitro testing revealed the following solutions to be significantly effective in reducing viscosity of meconium by 85% or more: Surf, T80, DNase, Gastro, Gol, V, and NS. NAC and PFC decreased viscosity only by 69% and 40% respectively.

Conclusions: Our results show that the surface tension reducing agent surfactant and the liquefying agent Gastrografin are the most effective of the solutions used in our study for the in vivo relief of constipation. Furthermore, this is accomplished without damage to intestinal mucosal integrity. These agents also significantly reduce viscosity in vitro, and we speculate that they, either alone or in combination, may be beneficial in relieving constipation due to MI in cystic fibrosis patients.

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EXPERIMENTAL SMALL BOWEL OBSTRUCTION IN CHICK EMBRYOS: 
EFFECTS ON THE DEVELOPING ENTERIC NERVOUS SYSTEM

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Background: After surgical repair of congenital small bowel atresias, intestinal motility disorders are often observed. These may be caused by changes of the enteric nervous system (ENS) secondary to obstruction. To assess these changes, small bowel atresias were were experimentally induced in chick embryos.

Methods: On day 11, the small intestine of 90 chicken embryos was microsurgically ligated in ovo. Breeding of the eggs was continued until day 19. The small bowel was removed, fixed and embedded for silverstaining, semi-thin serial sections and transmission electron microscopy. Additionally, AchE-staining was performed. Normal chick embryos of the same age served as controls.

Results: Macro-scopically, experimentally induced small bowel atresias had the same characteristics as human newborns. Microscopically, the wall structure was preserved, however the ENS differed markedly from controls: Both proximal and distal of the obstruction, the submucosal plexus were almost completely lacking while the myenteric plexus were diminished only in the proximal dilated blind pouch. The axonal net was additionally disrupted. Ganglion cells of the myenteric plexus in the proximal segment were arranged in longitudinal clusters of densely packed cells. In the distal segment ganglia cells formed round clusters. The cells of Cajal which normally surround the myenteric ganglia were absent in the proximal and distal segment.

Conclusions: In our experiments, major structural changes in the ENS could be observed secondary to experimentally induced small bowel atresias. This explains motility disorders found after small bowel atresia repair.

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MIDGUT ATRESIAS RESULT FROM ABNORMAL DEVELOPMENT OF NOTOCHORD IN ADRIAMYCIN RAT MODEL (ARM)

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Background/Purpose: Prenatal exposure to adriamycin in rat model (ARM) has been reported to lead to a spectrum of tracheoesophageal and associated malformations of the gastrointestinal tract, including multiple intestinal atresias. Abnormal relationship of the notochord with the foregut has been implicated in the formation of esophageal atresia. We hypothesized that midgut atresias arise from abnormal notochord development in the region of midgut. We, therefore, designed this study to examine the gut-notochord relationship during early embryonic development.

Methods: Timed pregnant Wistar rats were given 1.75 mg/kg of adriamycin intraperitoneally on days 7, 8 and 9 of gestation. Embryos were recovered at 12 hour intervals from days 9.5 to 14 and at term. A control group was given saline instead of adriamycin. Embryos were embedded in resin or wax, sectioned and studied using light microscopy, paying particular attention to the notochord and surrounding structures.

Results: The notochord appeared identical in controls and experimental embryos on day 9.5. However, on day 10.5 the notochord was diffusely abnormal in ARM embryos, distorted and tethered to foregut as well as midgut compared to controls. On day 12, the notochord abnormalities were more exaggerated in the region of the midgut in ARM embryos. Term ARM animals demonstrated esophageal and multiple intestinal atresias.

Conclusions: The notochord is abnormal in the region of the developing midgut and this may account for the occurrence of atresias found in this region.

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EPIDERMAL GROWTH FACTOR IMPROVES OUTCOME IN
A RAT MODEL OF SHORT BOWEL SYNDROME

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Background and Purpose: This study investigates the effect of Epidermal Growth Factor (EGF) on nutrient absorption in a rat model of Short Bowel Syndrome (SBS).

Methods: Male juvenile rats underwent either transection (Sham) or ileocecal resection leaving a 20-cm jejunal remnant. Animals were followed for 10 days, and resected animals treated with placebo (IR) or EGF (100 μg/kg/day enterally) from day 3 to 10. Animals were pair fed; in vivo nutrient absorption, intestinal permeability, morphology, and total intestinal DNA and protein content were measured.

Results:

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Weight ‡</th>
<th>3-0 MeG □</th>
<th>L/M ratio **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sham (IR)</td>
<td>6</td>
<td>8.66 ± 7.3</td>
<td>85.9 ± 7.7</td>
<td>0.27 ± 0.03</td>
</tr>
<tr>
<td>Resected+EG F</td>
<td>7</td>
<td>-13.7 ± 6.9*</td>
<td>64.9 ± 10.1*</td>
<td>0.60 ± 0.2*</td>
</tr>
<tr>
<td>Resected+EG F</td>
<td>7</td>
<td>-4.2 ± 3.3*</td>
<td>76.8 ± 6.6</td>
<td>0.35 ± 0.19†</td>
</tr>
</tbody>
</table>

Data: means ± SD. ‡: %Weight change. □: 3-0 MG urinary recovery over 18 hrs. **: ratio lactulose/mannitol urinary recovery. p<0.05 versus shams; †P<0.05 versus resected - placebo. Intestinal tissue protein and DNA content, and morphological villus height were increased in both IR and R-EGF groups, versus Sham.

Conclusions: EGF treatment significantly improved weight gain, carbohydrate absorption, and reduced permeability in this model of SBS. These findings suggest that EGF may be helpful in treating SBS patients clinically.

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PROBIOTIC SUPPLEMENTATION REDUCES THE RISK OF BACTERIAL TRANSLOCATION IN EXPERIMENTAL SHORT BOWEL SYNDROME

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Background: Probiotics are live organisms that survive passage through the gastrointestinal tract and have beneficial effects on the host. *Lactobacillus* and *Bifidobacterium* have been recommended in cholesterol lowering, acute diarrhea, prevention of cancer or inflammatory bowel disease. On the other hand, after massive bowel resection bacterial overgrowth is frequent and favours the occurrence of bacterial translocation (BT). The possible beneficial effects of *Bifidobacterium Lactis* (BL) administration on BT in experimental short bowel syndrome (SBS), have not been investigated.

Aim: To test the hypothesis that BL administration decreases BT in SBS in animals fed orally.

Methods: One hundred and twenty eight adult Wistar rats fed orally with standard rat chow and tap water “ad libitum” were maintained in individual metabolic cages for ten days and divided in three groups according to three treatment regimes:
- Control group (N=71): non-manipulated animals.
- RES group (N=39): 80% gut resection from the duodeno-jejunal angle to 10 cm above the cecum.
- RES-PRO group (N=18): same resection and daily 7.8x10⁹ CFU *Bifidobacterium Lactis* administration, after orogastric intubation.

At the end of the experiment they were sacrificed and mesenteric lymph nodes (MLN), and peripheral and portal blood specimens were recovered and cultured. Bacterial identification in blood was made by conventional methods and MLN culture was considered positive with a growth over 100 CFU/g.

Results: Bacterial translocation was detected in 7% of Control group rats. The incidence of BT in RES group was 87% (34/39) whereas only 50% (9/18) of RES-PRO animals had BT (p<0.05). The relative risk (RR) was 0.57 (95% confidence interval between 0.36-0.92) and the number needed to treat (NNT) was 3 (95% confidence interval between 2-8). Or, in other words, animals that receive BL had the risk of having BT reduced to the half (RR of 0.57) and every 3 animals treated, one is expected to be free of BT (NNT of 3).

Conclusion: Administration of *Bifidobacterium Lactis* reduces the incidence of BT in adult Wistar rats, after 80% gut resection.

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A MINIMALLY INVASIVE APPROACH TO BILE DUCT INJURY FOLLOWING BLUNT LIVER TRAUMA

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Purpose: To describe the successful treatment of a traumatic bile duct injury using ERCP and biliary stenting in a pediatric patient.

Methods: A 12 year old boy presented to our institution with right upper quadrant pain after being stepped on by a steer. A CT scan of the abdomen showed a large liver laceration, which was managed non-operatively. After four days, the patient developed increasing abdominal pain and tenderness, a fever, and ileus. Total bilirubin increased to 66 μmol/L, and a HIDA scan confirmed a bile leak. Operative ERCP identified a leak from the left hepatic duct, which was stented, and a minimally invasive insertion of a subcostal drain with peritoneal washout performed.

Results: The patient improved dramatically after the procedure, and was discharged home on post-operative day nine. The stent was removed uneventfully six weeks later; ultrasound at three months was normal.

Conclusions: We report the first use of ERCP, biliary stenting and drainage for a traumatic bile duct injury in a pediatric patient. This minimally invasive approach proved to be safe, and effective with a speedy recovery of the patient.

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EVALUATION OF SCOOTER RELATED INJURIES IN CHILDREN

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Purpose: The sudden popularity of the "scooter phenomenon" was followed by an increased rate of injuries associated with its use. This study evaluates the circumstances, types, degrees and mechanisms of injury related to the use of a scooter in our pediatric population.

Methods: From January/00 to February/01, the emergency files of all the children with a diagnosis of "scooter related trauma" were reviewed.

Results: 156 cases were recorded; 48% were between 10 and 13 years old; 67.3% were males. There was a incidence peak in september and october. Affected locations were as follows: face (47.5%), ankle (17.9%), wrist (17.3%), knee (11.5%) and head trauma (12%). 85% healed within one to four weeks; 16.6% needed hospitalization. Fractures occurred in 31%, 38% of them requiring surgical treatment. Mechanisms of injury: 45% occurred on the street and sidewalk, 36% of which resulted from collisions with a motor vehicle, 33% due to inefficient braking, 15% related to a mechanical problem in scooter's structure.

Conclusions: We observed a shift in the children's interest from roller/skate towards the scooter. We need to improve our research on scooter injury prevention and promote a program to reduce the number and the severity of related injuries. For now we would recommend head, wrist and ankle protections. The scooter use in traffic must be avoided, since it may lead to severe lesions.

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MANAGEMENT OF ACUTE PAIN IN CHILDREN: CHANGES IN ATTITUDES AND PRACTICES BETWEEN 1991 AND 2000

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Objective: Evaluate the change in management of acute pain in a tertiary care hospital following sensitization regarding paediatric pain management.

Methods: A prospective cohort of 56 children aged 5 to 17 years old (mean 12.1) admitted for surgery, trauma, or painful medical conditions was compared to a 1991 historical cohort. The latter group included 85 children 3 to 16 years old (mean 7.3) admitted with similar pathologies. The visual analogue scale (VAS) was used to evaluate pain intensity. A standardized questionnaire was used to evaluate parents and nurses knowledges and attitudes regarding paediatric pain management.

Results: Children' mean pain score (VAS) at day one post-admission was 5.5/10 in 1991 and 5.3/10 in 2000 while parents and nurses evaluation was 4.6 and 3.6 respectively in 1991 and 5.0 and 4.3 in 2000. Mean narcotics equivalent dose was 0.072mg/kg/patient in 1991 and 0.21mg/kg/patient in 2000. Nurses concerns of respiratory depression following narcotic use in children decreased from 71% in 1991 to 19% in 2000 and parents fear regarding narcotics use and addiction decreased from 67% in 1991 to13% in 2000.

Conclusions: Our results demonstrate that despite an increase in mean analgesic dose and a less nursing and parents fear of narcotics side effects, there was no change in patients' mean VAS score between the two cohorts. This may result from the PRN approach which leaves pain relief responsibility to the subjectivity of physician and nursing staff. We believe that safe and effective analgesia can be possible with a flexible algorithm based on individual patient needs and variability of therapeutic response.

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BILATERAL NEONATAL ADRENAL ABSCESS.
REPORT OF TWO CASES AND REVIEW OF DIAGNOSIS AND MANAGEMENT

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Background/ Purpose: Neonatal adrenal abscess is an extremely rare condition. 24 cases, 4 bilateral, have been described in the world literature. We treated successfully other two bilateral cases. We report on this rare condition and review the world literature.

Patients: Two patients presented in the neonatal period with abdominal distension, vomiting, irritability and fever. Abdominal ultrasound (US), plain x-ray of the abdomen, intravenous pyelography and computed tomography (CT) of the abdomen were performed. In both cases bilateral suprarenal cystic masses were identified, calcifications were observed in one patient. Vanilmandelic acid, Homovanillic acid and catecholamines were normal. The two neonates underwent a surgical exploration. Abscesses were found and drained releasing a moderate amount of haemorrhagic and purulent materials from the adrenal glands.

Results: Post-operative histology on the surgical specimen showed in both cases an abscess in partial haemorrhagic adrenal glands. No neoplastic cells were observed. The recovery was uneventful and at six months follow-up both patients were well and without signs of adrenal insufficiency.

Conclusion: Haematogenous bacteria seeding a normal gland or abscess formation in a previous haemorrhagic gland are the most accredited theories. Neuroblastoma, Wilm's tumor and renal duplication with dilatation of the upper segment must be considered in the differential diagnosis. Percutaneous drainage (+/- biopsy) under CT or US guide should be considered the treatment of choice, followed by surgical exploration when diagnosis is not clear.

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THE SPECTRUM OF SURGICAL PROCEDURES IN CHILDREN WITH CEREBRAL PALSY: A POPULATION-BASED STUDY

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Background: Children with cerebral palsy (CP) commonly undergo multiple surgical procedures, spread across specialties. This study examines the types, prevalence and risk factors of operations in CP children.

Methods: Records of all CP children currently enrolled in a regional Child Development Centre serving approx. 250,000 were analyzed.

Results: There were 106 children (mean age 9.0 years, 48% female). 77 children underwent 163 procedures over 14 years.

<table>
<thead>
<tr>
<th></th>
<th>General surgery (GS)</th>
<th>Orthopedics (OT)</th>
<th>Neurosurgery</th>
<th>ENT</th>
<th>Ophthalmology</th>
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</thead>
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<tr>
<td>Mean procedure no.</td>
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<td>Mean age (years)</td>
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<td>10.7</td>
<td>10.9</td>
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<tr>
<td>Main procedures</td>
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<td>Soft tissue release; arthrodesis</td>
<td>Rhizotomy; VP shunt</td>
<td>Myringotomy</td>
<td>Strabismus correction</td>
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</table>

Numbers of GS and OT procedures were significantly correlated to the type of CP and to the GMFCS, while other procedure types were not. Logistic regression predicted GS procedures by GMFCS alone, and OT procedures by age and CP type. Survival analysis plots are specific to each specialty.

Conclusions: Surgical procedures, especially orthopedic and general, are very frequent in CP children. Their frequency and temporal occurrence can be predicted by the severity and type of CP.

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PERCUTANEOUS EMBOLIZATION OF VARICOCELE IN CHILDREN.
A CANADIAN EXPERIENCE

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Background: Surgical management of varicocele has been the standard till recently when a
less invasive procedure was introduced and utilized mostly in Europe. Percutaneous
embolization and sclerotherapy has not been commonly used in North America. We reviewed
our experience in order to assess the feasibility and outcome of this approach in children.

Patients and methods: A retrospective study, included 42 patients who underwent 45
percutaneous embolization and sclerotherapy since 1991. Clinical data, investigation, pre and
post intervention management and the technique of the procedure were collected from the charts
in addition to sedatives used and anaesthesia if needed. Follow up was obtained from the chart
or by phone calls.

Results: 42 patients underwent 45 percutaneous interventions. Age ranging from 10-20 years
(median 14). All but five were injected with sclerosing agents 23 of them have also coil(s) put
in. All procedures except one were done under local anaesthesia with sedation. Only two
patients were admitted overnight and five patients have minor complications. Average
procedure time was 55 minutes. Follow up was obtained in 39 patients (90%), with a mean
follow-up of 22 months. 91% of those who were injected have satisfactory results (cured or
improved) without requiring further procedures Six patients have persistent or recurrent
varicocele, five of them underwent surgery.

Conclusion: Percutaneous embolization is a safe and effective treatment of varicocele in
children with technical success in 95% and therapeutic success in 91%. It's now our first
treatment modality.

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LAPAROSCOPIC SURGERY FOR PEDIATRIC VARICOCELES:
RANDOMIZED CONTROLLED TRIAL

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Background/Purpose: The purpose of the investigation was to evaluate the advantages and the shortcomings of laparoscopic varicocelectomy as compared with open traditional treatment of varicoceles.

Methods: 654 patients were operated for left-sided varicoceles over 5 years from 1995 to 2000. To evaluate the clinical efficiency of the treatment, the patients were randomly divided into two groups. Laparoscopic varicocelectomy (LV) was performed on 434 patients, and open varicocelectomy (OV) in 220 patients. Outcome data looked at relapse rate, presence of hydrocele, wound complications, testicular/scrotal oedema. Operative time, post-op length of stay and pain control were compared. In both groups, the operations were performed with the help of Palomo’s technique with preservation of lymphatics.

Results: In LV vs OV, relapse rates were 1.84% vs 1.36 (P > 0.5), hydrocele occurrence was 0.23% vs 1.82% (P < 0.1), wound complication 0.23 % vs 7.73%, testicular/scrotal oedema 3.9% vs 13.1%. For LV hospital stay was on average 3 days versus 7 days for OV. Operative time was 15 min. for LV vs 26 min. in open. Post-op analgesic use was almost cut in half in LV.

Conclusion: The clinical efficacy of LV is superior to traditional OV.

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PREDICTORS OF RECURRENT IN WILMS' TUMOUR

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Background/Purpose: The purpose of this study is to describe the incidence, and identify predictors of recurrent Wilms' tumour at our institution.

Methods: A retrospective analysis of recurrent Wilms' tumour cases, over a period of 1990 through 2001, was done. Detailed data, including the karyotypic analysis of the primary tumour and the recurrence, were collected.

Results: Seventy-one patients with Wilms' tumour were managed at our institution in the period above. Thirteen patients developed tumour recurrence; their initial tumour stages were as follows: 1 stage I, 5 stage II, 3 stage III, 3 stage IV and 1 stage V. Intraoperative primary tumor spillage occurred in 5 patients. The resection margin was positive in 3 patients. The average time to detection of the recurrence was 10 months after resection of the primary tumour. Eight recurrences were in the abdomen and 5 in the lungs. Twelve primary tumours had available histology, 9 were favorable and 3 were unfavorable. Karyotypic analysis demonstrated hyperploid karyotype and chromosome 6 abnormalities in 7 primary tumours and 5 recurrent tumours.

Conclusion: Low stage and favourable histology of the primary Wilms' tumour do not preclude recurrence. Hyperploidy and chromosome 6 abnormalities may prove to be more accurate predictors of recurrence.

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BLUNT RENAL TRAUMA – BLESSING IN DISGUISE?

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Purpose: The purpose of this study was to quantify pathological lesions of the kidney found incidentally during the work-up of a blunt renal trauma.

Methods: A retrospective review of the medical records of 110 patients ages 0-18 with blunt renal injuries admitted to a Level I pediatric trauma center between 01/10/91 and 30/06/00 was performed. All patients underwent ultrasonography, additional investigation with CT scan, cystography, or DTPA was performed as indicated.

Results: Co-existing uro-genital lesions were identified in 13 of 110 (11.8%) patients reviewed. The majority of the patients suffered a minimal trauma, 8/13 fell from a height of less than 10 feet. All patients presented with gross hematuria as their main symptom. Stenosis of the uretero-pelvic junction was the most frequent diagnosis (7): 3 patients required elective uretero-pyeloplasty, one urgent and one elective nephrectomy were performed. Two heterogeneous renal masses were discovered in which the diagnosis of a malignant process could not be eliminated, elective resection and open biopsy were performed, the diagnoses of multicystic kidney and ruptured single cyst with hematoma respectively were confirmed on pathology. Grade III ureterovesical reflux (1), unilateral renal agenesis (1), extra-renal pelvis without obstruction (1), and horseshoe kidney (1) were the other lesions discovered.

Conclusions: Pathological lesions of the urinary tract are uncommon, however, they may complicate an otherwise negligible renal trauma. The diagnostic and therapeutic approach to blunt renal trauma must be modified in these cases. The fortuitous discovery led to surgical treatment of a potentially serious lesion in 6 of 13 cases reviewed.

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ABNORMALITIES OF C-KIT POSITIVE CELLULAR NETWORK
IN ISOLATED HYPOGANGLIONOSIS

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Background/Purpose: C-kit positive interstitial cells of Cajal (ICC) appear to have a key role in the normal motility function and development of intestine. In the human bowel the ICCs are localised at the level of myenteric plexus in the innermost part of the circular muscle layer, and within the circular muscle layer itself. The aim of this study was to examine the distribution of c-kit positive ICCs and its relationship to the autonomic intrinsic innervation in bowel specimens from patients with isolated hypoganglionosis.

Methods: Full thickness large bowel specimens were collected from 6 patients diagnosed as having isolated colonic hypoganglionosis and from 4 patients during bladder augmentation (controls). The specimens were stained using c-kit immunohistochemistry, nicotinamide adenine dinucleotide phosphate (NADPH)-diaphorase and Acetylcholinesterase (AChE) histochemistry in conventional frozen sections and whole-mount preparations.

Results: NADPH-diaphorase and AChE histochemistry demonstrated characteristic histological features of hypoganglionosis. C-kit positive ICCs were markedly reduced between the longitudinal and circular muscle layer, in the innermost part of the circular muscle layer and within the circular muscle layer in hypoganglionosis. The NADPH-diaphorase and AChE positive myenteric plexus in the normal bowel was surrounded by a network of c-kit positive ICCs whereas in hypoganglionosis, only a few ICCs were seen as isolated cells without forming a network.

Conclusion: Deficient expression of c-kit positive ICCs in the hypoganglionic colon may contribute to motility dysfunction in the affected bowel.

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NEOSTIGMINE FOR THE TREATMENT OF PEDIATRIC ACUTE COLONIC PSEUDO-OBSTRACTION

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Acute colonic pseudo-obstruction (ACPO), or "Ogilvie's Syndrome" has been traditionally treated by mechanical decompression. Recently, neostigmine, an acetylcholinesterase inhibitor, has emerged as a safe and effective pharmacological alternative in adults. This is the first report of its successful use in children.

A 4-year-old male with spastic quadriplegia underwent elective lower extremity osteotomies. The patient's recovery was uneventful until day 5 when he became septic from a urinary tract infection and conjunctivitis. On day 10 he developed painless progressive abdominal distension and obstipation. Abdominal x-rays revealed a grossly dilated colon, and contrast studies ruled out mechanical obstruction. A diagnosis of Ogilvie's syndrome was made.

After 2 days of failed conservative therapy, a trial of neostigmine was attempted in the pediatric ICU. IV neostigmine was slowly titrated to a total of 0.75 mg, when the patient developed wheezing. Within minutes of the last dose, bowel sounds returned, and over hours the patient passed large amounts of flatus and several large volumes of stool. The abdominal symptoms resolved and the patient was eventually discharged.

ACPO is a rare yet important entity in the pediatric population. Neostigmine appeared to be effective in the case described. Further studies will be required to confirm this initial report.

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SUCCESSFUL OPERATIVE MANAGEMENT OF SOLITARY RECTAL ULCER SYNDROME IN A CHILD

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Case Report: An 11 year-old girl presented with rectal bleeding, mucous discharge, pain, and anal pruritus. PMH was significant for McCune Albright Syndrome. The child’s symptoms began at 5 years. Medical therapy with antibiotics, steroid suppositories, and enemas had failed. Her condition caused embarrassment at school. Nevertheless, she performed well academically. Previous colonoscopies revealed a solitary rectal ulcer present at 5 cm on the posterior rectal vault. Biopsy specimen revealed fibrosis of the lamina propria with crypt architectural distortion, consistent with an ulcer. Preoperative evaluation included defacography demonstrating normal relaxation and no evidence of intussusception or rectal prolapse. MRI of the pelvis was without abnormality. Anorectal manometry showed a maximal pressure of 108 mm Hg at rest and 137 mm Hg with squeeze. A normal anal-rectal inhibitory reflex was also demonstrated. The child was taken to the operating room and approached through a dorsal lithotomy position. A 1.5 cm by 1.0 cm by 0.3 cm full thickness excision of the ulcer was performed. Another small ulcer was treated with CO2 laser fulguration. Recovery was uneventful with discharge on postoperative day 3. There was no recurrence by rigid proctoscopy at 1 month follow-up. The child remains asymptomatic at 3 months.

Discussion: Solitary rectal ulcer syndrome is a rare condition often associated with rectal prolapse or intussusception and characterized by rectal bleeding, mucous discharge, pain, and tenesmus. Most cases are reported in adults between 30-50 years with an overall incidence at one per 100,000 per year. It remains an unusual cause of rectal bleeding in children with few case reports in the English literature. Etiology remains elusive but may be related to local trauma or ischemia of the rectal wall. The most appropriate treatment for this condition in children is yet to be determined; however, surgical excision offers promise, especially in difficult cases that have been refractory to medical management.

Disclosure: No, I do not have Disclosure Information.

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IS LAPAROSCOPIC SUBTOTAL COLECTOMY BETTER THAN OPEN SUBTOTAL COLECTOMY IN CHILDREN?

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Purpose: The role of laparoscopic colectomy is not clearly defined. The aim of this study was to compare clinical outcomes of laparoscopic versus open subtotal colectomy in children with inflammatory bowel disease.

Methods: Eight consecutive patients undergoing laparoscopic subtotal colectomy were compared with ten consecutive patients undergoing open subtotal colectomy. All patients were refractory to medical management on immunosuppressive regimens. Operative time, length of postoperative stay and intravenous narcotic use, time to return of intestinal function and postoperative complications were compared between the groups.

Results: Operative times were significantly longer in the laparoscopic group (mean laparoscopic 4 hour 40 minutes vs. open 2 hour 25 minutes, p<.01). There was no difference between the two groups in length of postoperative intravenous narcotics or hospital stay. Ileostomy output occurred earlier (mean laparoscopic 2.5 days vs. open 3.8 days, p=.01), and there was a trend toward earlier oral intake, in the laparoscopic group. A total of 6 postoperative complications occurred in 4 patients in the laparoscopic group compared with 5 postoperative complications in 5 patients in the open group.

Conclusions: Perioperative clinical outcomes, including complication rates, are similar with laparoscopic and open subtotal colectomy. Laparoscopic subtotal colectomy can be performed safely in children with improved cosmesis.

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LAPAROSCOPIC APPENDECTOMY IN SIMPLE AND COMPLICATED PEDIATRIC APPENDICITIS: A FAVORABLE ALTERNATIVE

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BACKGROUND: The laparoscopic treatment of pediatric appendicitis remains controversial, particularly in complicated cases (gangrene and perforation). This study evaluates outcomes of open and laparoscopic appendectomy.

METHODS: The 391 cases of pediatric appendectomy performed between January 1998 and January 2001 were reviewed for age, sex, weight, type and length of intervention, intra-operative description, analgesia, complications, length of hospitalization and histopathology.

RESULTS: A total of 126 patients were operated on by laparoscopy (LA), 262 by laparotomy (OA), and there were 3 conversions (LA+OA). LA patients were older (11.9 vs 9.6 years old, p<0.001) and more frequently female (57.1% vs 38.2%, p=0.0004). LA took slightly longer to perform (45.7 vs 40.6 minutes, p=0.0014). Intra-operatively, 24.6% of LA appendices were described as complicated, against 22.3% in OA. Narcotic use was equivalent in both groups (1.16 vs 1.29 days, p=0.434), as was the incidence of complications, either intra-operative (1.6% vs 0.4%, p=0.20) or post-operative (11.1% vs 8.02%, p=0.32). Hospitalization was shorter in LA (2.38 vs 2.94 days, p=0.0131). Histopathology was negative in 21.4% of LA cases compared to 13% of OA’s.

CONCLUSION: Laparoscopic appendectomy does not increase the incidence of complications, even with gangrenous or perforated appendicitis. The length of intervention is prolonged by 5 minutes on average, however this technique allows for a shorter hospitalization.
THE TECHNIQUE OF LAPAROSCOPIC REDUCTION OF INTUSSUSCEPTION FOLLOWING INCOMPLETE REDUCTION WITH GAS ENEMA

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Background: In the absence of peritonitis children with intussusception routinely undergo an attempted enema reduction, and this is likely to be successful in 70%-95%. Where complete reduction of intussusception has failed despite repeated attempts at enema reduction, surgery is required. This paper describes a technique whereby the residual intussusception can be reduced relativelyatraumatically, using a laparoscopic approach.

Methodology: Two cases of incomplete enema reduction of intussusception and their subsequent successful laparoscopic reduction are presented. Refinements in the technique of laparoscopic reduction are demonstrated on video.

Results: Failure of attempted enema reduction of intussusception occurs in 5%-30% of cases. A repeat delayed enema is successful in about 50% but in the remainder complete reduction through the ileocaecal valve is not successful. These children require surgery; but in only a minority is bowel resection required. This paper describes how the residual intussusception can be reducedatraumatically through a laparoscopic approach involving a technique combining traction and twisting.

Conclusions: A laparoscopic approach may enable reduction of intussusception without resection where delayed repeat enemas have been unsuccessful.

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PARTIAL SPLENECTOMIES BY LAPAROSCOPY IN CHILDREN

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Total splenectomy in children carries a risk of fulminant septicemia. In pediatric oncology, in order to reduce the risk of sepsis, we never performed total splenectomy before the age of 5 years. Partial splenectomies has allowed to lower this age limit to 2.2 y in our experience. The prognosis of partial splenectomies is uncertain: In some cases the procedure is sufficient, but in others, the spleen regenerates and after a few months or years, reoperation becomes necessary. However in most cases the operated children made it over the age of 5. It was therefore logical to perform this procedure by laparoscopy. Between 1997 and 2000, we performed 5 subtotal splenectomies by laparoscopy, 4 of which for hematologic indications (1 congenital pyruvate kinase deficiency, 2 spherocytosis et 1 thalassemia) in children aged 2.1 to 4.5 years, as well as for one giant cystic hamartoma (23x20x15 cm) in a girl aged 8. One of the hematologic patient was reoperated 1.5 year after hemisplenectomy for hypersplenism recurrence. A total splenectomy by laparoscopy was done. There were no adhesions, except for an omental one to the edge of the divided spleen. Subtotal splenectomy allows to reduce hypersplenism in children under 5 with hematologic conditions. It can be performed by laparoscopy as well. In addition to cosmetic advantages and absence of abdominal wall trauma, it may lead to the formation of fewer adhesions. This will make repeat laparoscopies possible if needed.

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516 LAPAROSCOPIC HERNIOTOMIES IN BOYS: SENSE OR NON-SENSE?
A MULTICENTRIC STUDY

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Background: Laparoscopic inguinal hernia repair is an alternative treatment that is not widely accepted in most of pediatric centers. The use of laparoscopy is often limited to the controlateral exploration. However, the safety and the efficiency of this method to close the peritoneo-vaginal duct has been demonstrated. From a multicentric experience with the same technique, additional indications for a laparoscopic surgery could be considered.

Methods: In 3 pediatric surgical units, since 1995, a laparoscopic inguinal herniorrhaphy was performed on 516 boys, ranging from 3 weeks to 14 years (median 3.6 years). The peritoneal pressure was maintained under 8 mmHg, and we used 2 trocars of 3mm for the instruments. After a partial incision of the ring, the neck of the sac was closed laparoscopically with a 4:0 non-absorbable suture. A systematic follow-up was scheduled after 6 months.

Results: The median operative time was 22 minutes. There were no intraoperative incidents. 676 indirect inguinal hernias were closed in 516 boys, because a controlateral asymptomatic processus was patent in 16% of the children. The recurrence rate was 2.9%. Hydroceles were observed in 3 children. No wound infection or testicular atrophy has occurred.

Conclusions: Due to the high incidence of inguinal hernia in children, a suitable expertise can be obtained in a short time. Technically simple, this alternative treatment can be validated in term of laparoscopic training for residents. It allows a safe controlateral exploration and less time consuming in case of bilaterality. However, concerning children under one year of age with very large hernias, there were no recurrence rate improvment. In case of primary hydrocele, small and direct hernias, or in recurrency, the laparoscopic technique could become the first choice procedure.

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ROUTINE PATHOLOGICAL EVALUATION OF PEDIATRIC INGUINAL HERNIAS IS NOT COST EFFECTIVE

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Purpose: A pathology report of a pediatric inguinal hernia sac with an unexpected abnormal finding is rare. The aim of this study was to determine the cost of routine pathological evaluation of pediatric inguinal hernia sacs and the incidence of clinically significant pathological findings.

Methods: The health records of a tertiary care hospital were searched for inguinal hernia repairs in patients less than age 20 years for the years 1988 – 1997. Records with abnormal pathology findings identifying tubular structures were selected and the operative records and histology slides reviewed. Specimens were stained with muscle specific actin (SMA) immunoperoxidase. The cost of pathological evaluation was estimated using the provincial physician-billing schedule.

Results: There were 488 inguinal hernia repairs in 371 patients. 456 (93.4%) specimens were evaluated microscopically. There were 5 (1.1%) abnormal reports: 1 vas deferens (suspected at surgery) and 4 epididymis. At $62.40/specimen the cost for routine pathological evaluation of approximately 430 pediatric inguinal hernia repairs/year done provincially is $26,832.

Conclusions: The routine histologic evaluation of pediatric inguinal hernia sacs is an unnecessary expense and should be reserved for select cases at the discretion of the surgeon.

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VARIABILITY OF INGUINAL HERNIA SURGICAL TECHNIQUE: A SURVEY OF NORTH AMERICAN PEDIATRIC SURGEONS

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Background: The tradition of learning from mentors is a unique aspects of surgical training. With this in mind, we sought to document our roots by analyzing the technical variability of how pediatric surgeons perform our most frequent operation, the inguinal hernia, and compared these data to Dr. Ladd's original description.

Methods: A survey compiling the operative steps of an inguinal hernia repair, as well as several key clinical situations involving hernias, was mailed pediatric surgeons in North America. These results were then compared to Dr. Ladd's original inguinal hernia description. Results are recorded as the % who concurred with Dr. Ladd's original description.

Results: 447 of 640 (70%) surveys were returned. Genealogic data show that 81% of surgeons' hernia lineage can be traced to Dr. Ladd. When compared to all respondents, Dr. Ladd's hernia repair steps included: incising Scarpa's fascia with scissors (65%), defining the external oblique with scissors (61%), defining the external ring by pushing down with retractors (34%), incising the external oblique with scissors (18%), identifying the ilioinguinal nerve (81%), cleaning one underside of the external oblique (22%), spreading the cremasteric fibers (90%), elevating the sac without dissecting the vessels (53%), ligating the sac with single ligature (22%), without twisting it (34%), leaving the distal sac untouched other than to drain fluid (78%), not inspecting the testicle (79%), performing a formal floor repair (10%), tightening the internal ring in both boys and girls (19% and 41%), using no local anesthetic (14%), closing Scarpa's (94%), closing the skin with interrupted subcuticular sutures (49%), covering the incision with Collodion (48%), exploring the contralateral side only if a hernia was suggested by history or physical exam. (87% for boys, 60% for girls).

Conclusions: There is significant variability in the way pediatric surgeons perform inguinal herniorraphy. Differences from Dr. Ladd's original description likely resulted from evolving techniques, experiences, and outcomes.

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COACHING SURGICAL RESIDENTS USING OPERATIVE VIDEO REPLAY

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Background: The training of surgical residents in the necessary technical, operative skills has analogy in the training of elite athletes. In sports, coaches have utilized the video replay (VR) as an effective and proven teaching tool for years.

Methods: Surgical trainees were videotaped whilst performing routine paediatric inguinal hernia repairs. Twelve sessions were recorded by a simple tripod-mounted video camera. Four residents were taped twice once early in their rotation and approximately one month later. Their operative skills were evaluated as seen on the VR by means of a structured operative performance scoring method. Each VR was viewed and actively discussed by the training program director and the trainee in a manner analogous to a coach and athlete strategically reviewing a sports or game video replay.

Results: The surgical trainees expressed their enthusiasm for this teaching/learning technique and believed it to be worthwhile. VR review and scoring took approximately 20 minutes. Where serial VR’s were scored, improvement was documented.

Conclusion: Borrowing this coaching technique from the field of sports, we have found operative VR to be a simple, fun and valuable surgical teaching technique.

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19:00 - 22:00 Réception de Bienvenue – Hôtel Fort Garry

Vendredi, le 14 septembre 2001

07:00 - 12:00 Inscription
07:00 - 08:00 Petit Déjeuner
07:30 - 12:00 Exposants
08:00 - 08:10 Mot de Bienvenue et Ouverture du Congrès
08:10 - 10:10 PREMIÈRE Session Scientifique
10:10 - 10:40 Pause-Santé
10:40 - 10:55 Lucille Teasdale par Dr. Pierre-Paul Collin
10:55 - 11:40 Fred MacLeod Lecture, Dr. Richard S. Bransford
11:40 - 12:10 Tribune sur la Chirurgie Pédiatrique sans Frontières
12:10 - 13:30 Lunch avec les membres de la tribune
13:30 - 15:06 DEUXIÈME Session Scientifique

Samedi, le 15 septembre 2001

06:00 - 08:00 Réunion du Comité de Spécialité en chirurgie générale pédiatrique
06:00 - 08:00 Réunion du Comité de Publications
07:00 - 12:00 Inscription
07:00 - 08:00 Petit Déjeuner
07:30 - 12:00 Exposants
08:00 - 10:00 TROISIÈME Session Scientifique
10:00 - 10:30 Pause-Santé
10:30 - 11:22 QUATRIÈME Session Scientifique
11:22 - 12:30 "2 minutes / 2 diapos"
12:30 - 15:00 Déjeuner d’affaire des Membres
18:00 Réception du Président – Hôtel Fort Garry
19:00 Banquet du Président – Hôtel Fort Garry

Dimanche, le 16 septembre 2001

07:00 - 09:00 Inscription
07:00 - 08:00 Petit Déjeuner
07:30 - 09:30 Exposants
08:00 - 10:00 CINQUIÈME Session Scientifique
10:00 - 10:30 Pause-Santé
10:30 - 10:45 Prix du résident pour la meilleure présentation clinique et expérimentale
10:45 - 11:45 SIXIÈME Session Scientifique
11:45 Mot d’adieu du président
Il sied bien à l'ACCP de tenir son 33e congrès annuel très près de ce lieu chargé d'histoire qu'est la jonction des rivières Rouge et Assiniboine, au centre géographique de l'Amérique du Nord. Depuis des siècles des gens du Nord, du Sud, de l'Est et de l'Ouest se sont rendus à cet endroit à pied ou par voie maritime avant que des frontières ne soient érigées et par rail, par route ou par les airs depuis. Il est probable que dans l'avenir, ils continueront de s'y rendre par l'intermédiaire des fibres et des ondes traversant les frontières qui seront devenues virtuelles.

C'est à cette "fourche", comme on l'appelle que les gens se sont retrouvés pour écouter, discuter, décider et fêter. Ce congrès de l'ACCP ne fera pas exception. Pour trois jours, tout se passera suivant les meilleures traditions de l'ACCP. Nous nous rappellerons et honorerons la mémoire de ceux qui nous ont précédés et qui nous ont permis d'atteindre ce stade dans l'histoire de l'ACCP.

Le thème principal de ce congrès est: "Chirurgie Pédiatrique sans frontières / Pediatric Surgery without Borders". Plusieurs de nos membres ont pratiqué la chirurgie pédiatrique dans des pays en voie de développement et nous vous ferons partager leur expérience. Nous commencerons cette session du congrès en nous remémorant et en honorant le souvenir d'une chirurgienne canadienne, Docteur Lucile Teasdale qui, bien n'ayant jamais été membre de l'ACCP, a consacré et même donné sa vie aux patients en Ouganda. Je remercie le Docteur Pierre-Paul Collin, membre fondateur de notre association et un de ses professeurs, d'avoir bien voulu contribuer à ce congrès. Nous accueillerons également comme conférencier invité le Docteur Richard S. Bransford, du Kenya, dont la carrière ressemble beaucoup à celle du Docteur Teasdale.

Mais il n'y aura pas que du travail. Profitez de tout ce que Winnipeg et le Manitoba ont à vous offrir: diversité culturelle, le musée de l'Homme et de la Nature incluant une collection historique de la baie d'Hudson, la plus grande collection d'art Inuit au monde au "Art Gallery", le quartier historique de St-Boniface, la plus grande communauté francophone hors Québec, événements sportifs, magnifiques couchers de soleil, la plaine lune et bien plus encore (voir la liste des activités dans le livret du programme); tout cela sous les cieux amicaux du Manitoba.

Bienvenue à l'ACCP 2001. Minwenita! Bon congrès! Enjoy! Meegwetch!! EKosi!!

Ray Postuma, M.D.
Président
Association Canadienne de Chirurgie Pédiatrique
À PROPOS DE L'ASSOCIATION CANADIENNE DE CHIRURGIE PÉDIATRIQUE

L'Association Canadienne de Chirurgie Pédiatrique fut fondée en 1967. Son principal but est d'améliorer la qualité des soins chirurgicaux offerts aux enfants au Canada.

Il existe trois secteurs d'intérêt principaux pour les membres. Ce sont les méthodes diagnostiques, les traitements ainsi que la recherche.

Les Nouveau-Nés Porteurs de Malformations Congénitales

Bien que la majorité des nouveau-nés porteurs de malformations congénitales graves puissent être opérés avec succès, il arrive souvent que la malformation ne soit pas reconnue ou, si elle est diagnostiquée, que le médecin de première ligne ne soit pas au courant des possibilités chirurgicales. Dans ces conditions, la plupart de ces enfants meurent ou, s'ils survivent, la qualité de leur vie est fortement diminuée par leur malformation.

Les Néoplasies de l'Enfant

Le cancer constitue la deuxième cause de mortalité chez les enfants. Actuellement, l'exérèse chirurgicale des tumeurs associée à la chimiothérapie et la radiothérapie permet de guérir la majorité de ces enfants.

Les Traumatismes

Les traumatismes représentent la première cause de mortalité infantile en Amérique du Nord. Grâce aux méthodes modernes de premiers soins, de transport, de réanimation et de soins intensifs, ainsi qu'à la disponibilité des équipes chirurgicales spécialisées, il est devenu possible de sauver un grand nombre de ces enfants.

Programme d'Éducation Médicale Continue

Afin de réussir à améliorer la qualité des soins chirurgicaux pédiatrique, l'Association Canadienne de Chirurgie Pédiatrique a lancé un programme d'éducation médicale continue pour les médecins, le personnel infirmier ainsi que pour les autres travailleurs du domaine de la santé de l'enfant. Un fonds d'éducation fut créé afin de pouvoir soutenir ce programme.
FONDS D'ÉDUCATION

Le rôle du Fonds d'Éducation est de promouvoir l'éducation médicale continue des membres de l'Association Canadienne de Chirurgie Pédiatrique, l'éducation des autres spécialistes, médicaux et chirurgicaux, des médecins en formation et du public à propos des maladies pédiatriques chirurgicales et de leur prévention. Le financement du Fonds d'Éducation provient d'individus et de groupes aussi bien médicaux que non médicaux intéressés à la chirurgie de l'enfant. Il provient également de certaines fondations caritatives. Il est de l'intention de l'Association d'augmenter le capital jusqu'à un niveau suffisant pour que les intérêts puissent soutenir le Programme d'Éducation Médicale Continue.

Le Fonds d'Éducation de l'Association Canadienne de Chirurgie Pédiatrique est inscrit auprès du gouvernement fédéral et tous les dons qu'il reçoit sont entièrement déductibles d'impôt. Une vérification comptable est faite tous les ans.

Les dons peuvent être adressés à:

Salam Yazbeck, M.D.
Secrétaire-Trésorier de l'ACCP
Hôpital Sainte-Justine
3175, Côte Ste-Catherine
Montréal (Québec) CANADA
H3T 1C5

Téléphone (514) 345-4688
Fax (514) 345-4964
E-mail Secretary@caps.ca
### PRÉSIDENTS

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<td>David P. Girvan</td>
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<td>2001-2003</td>
<td>Mike Giacomantonio</td>
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### SECRÉTAIRES-TRÉSORIERS

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<td>Peter G. Fitzgerald</td>
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MEMBRES FONDATEURS

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

* décédé

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.
PROCHAIN CONGRÈS DE L'ACCP

34ᵉ Réunion annuelle
20-23 Septembre 2002
The Westin Bayshore, VANCOUVER

www.westinbayshore.com

Blotti aux abords du prestigieux Coal Harbour,
directement voisin du fameux Stanley Park de 1000 acres,
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Marina, une vue magnifique de la montagne, l'océan et la ville, aussi
bien que l'accès direct aux quartiers d'affaire, de magasinage et
de divertissement du Centre-Ville de Vancouver.
PRÉSENTATIONS DES RÉSIDENTS

Les présentations faites par les résidents en chirurgie sont jugées par un panel constitué des membres du Comité de Publication. Il y a deux catégories: celui du meilleur travail clinique et celui du meilleur travail expérimental. Chaque prix est de 500$. Le comité du Programme essaie normalement de placer ces communications durant les deux premiers jours du programme afin que la remise des prix puisse avoir lieu au cours du Banquet de Président.

PRIX POUR LES MEILLEURES COMMUNICATIONS DES RÉSIDENTS 2000

MEILLEUR TRAVAIL CLINIQUE

Dr. David J. HACKAM

"Mechanism of pediatric trauma deaths in Canada and the United States: The role of firearms"
D.J. Hackam, M.V. Mazziotti, R.H. Pearl, A.L. Winthrop, M. Kreller, J.C. Langer
The Hospital for Sick Children, Toronto (Ontario) CANADA
St.Louis Children's Hospital, St.Louis MO U.S.A.

MEILLEUR TRAVAIL EXPÉRIMENTAL

Dr. Ioana BRATU

"Pulmonary artery remodeling after reversible tracheal occlusion in diaphragmatic hernia"
I. Bratu, H. Flageole, J.M. Laberge, M.F. Chen, B. Piedboeuf
McGill University Health Center, The Montreal Children’s Hospital
Montreal (Quebec) CANADA

FÉLICITATIONS AUX DR. HACKAM ET BRATU !
ATTRIBUTION DES PRIX

LIVRE - ASHCRAFT TEXTBOOK

Dr. Adriana S. CONDELLLO
"Pediatric trauma registries: The foundation of quality care"
A.S. Condello, H.J. Hancock, M. Hoppensack, M. Tenenbein, T. Charkyk-Stewart,
D. Kirwin, J. Williamson, C. Findlay, M. Moffatt, N. Wiseman, R. Postuma
University of Manitoba, Winnipeg (Manitoba) CANADA

ABONNEMENT AU JOURNAL OF PEDIATRIC SURGERY

Dr. John GILLICK
"Intestinal neuronal dysplasia: Results of treatment in 33 patients"
J. Gillick, H. Tazawa, P. Puri
Children's Research Centre, Our Lady's Hospital for Sick Children
Crumlin, Dublin IRELAND

ABONNEMENT AU SEMINARS IN PEDIATRIC SURGERY

Dr. Paul WALES
"Longterm outcome after nonoperative management
of complete traumatic pancreatic transection in children"
P. Wales, B. Schuckett, P.C.W. Kim
The Hospital for Sick Children, Toronto (Ontario) CANADA

FÉLICITATIONS AUX DR. CONDELLLO, GILlick AND WALES !
CONFÉRENCIER INVITÉ

Docteur Richard S. Bransford, M.D.

La visite du Docteur Richard Bransford a été rendue possible grâce au support financier du Collège Royal des Médecins et Chirurgiens du Canada.

Le Docteur Richard Bransford a obtenu son doctorat en médecine de la Faculté Johns Hopkins en 1967; il a complété ses études de chirurgie au centre médical de l'Université du Nebraska. Après deux années passées dans l'armée de l'air américaine, il obtint un diplôme de médecine tropicale de l'Université d'Anvers, en Belgique. Il a rejoint par la suite "Africa Inland Mission" en tant que chirurgien de carrière et, à ce titre il servit dans la République Démocratique du Congo, aux Comores et depuis 23 ans, au Kenya.

Malgré le fait que le Docteur Bransford n'ait pas eu un entraînement spécifique en chirurgie pédiatrique, sa vision à long terme des soins des enfants handicapés du Kenya a abouti à l'ouverture du premier hôpital de l'Est de l'Afrique, dédié aux soins chirurgicaux multidisciplinaires pour les enfants atteints de différents types d'handicaps. Il est devenu, en 1988, le directeur médical de ce centre appelé "Bethany Crippled Children's Centre" à Kijabe, au Kenya. Il est aussi consultant pour l'hôpital du district de Lamu, dans le nord du Kenya ainsi que pour celui du "Samaritan's Purse", à Lui, dans le Sud du Soudan.

Le Docteur Bransford est membre de plusieurs sociétés savantes et associations nord américaines et africaines. Il est marié et a sept enfants.

L'Association Canadienne de Chirurgie Pédiatrique est honorée d'inviter le

DOCTEUR RICHARD S. BRANSFORD

à titre de conférencier du Collège Royal des Médecins et Chirurgiens du Canada

à donner la conférence annuel le Fred MacLeod

Le sujet de la conférence est: "UN FARDEAU POUR LES ENFANTS AFRICAINS"
VISITEZ NOTRE SITE INTERNET

www.caps.ca
Cette réunion est accréditée aux fins du maintien de la compétence tel que défini par le Collège Royal des Médecins et Chirurgiens du Canada

Le Collège Royal des Médecins et Chirurgiens du Canada commandite la présente réunion par l'octroi d'une subvention pour la réunion annuelle d'associations nationales de spécialistes