18th

Annual Meeting
Réunion Annuelle

HALIFAX
August 27-30, 1986

Canadian Association of Paediatric Surgeons
l’Association Canadienne de Chirurgie Infantile
programme détaillé
programme schedule

HALIFAX
August 27-30, 1986
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 in 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 commonest cause of death in childhood. Now 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.
SOCIAL PROGRAM

WEDNESDAY, AUGUST 27, 1986:

WELCOMING RECEPTION

Place: Onboard HALIGONIAN III
2 hour boat tour - members and family leaves from Privateer's Warf next to Sheraton Hotel

Time: 18:30 RSVP

THURSDAY, AUGUST 28, 1986:

C.A.P.S. BANQUET

Place: Shore Club,
Hubbard's, Nova Scotia

buses provided
casual dress

Time: 18:30 - buses leave hotel
19:15 - Reception
20:15 - Dinner

RSVP
FUTURE ANNUAL MEETINGS

19th ANNUAL MEETING
WINNIPEG, MANITOBA
September 11-15, 1987

20th ANNUAL MEETING
OTTAWA, ONTARIO
September 23-27, 1988

21st ANNUAL MEETING
EDMONTON, ALBERTA
September 22-26, 1989

22nd ANNUAL MEETING
TORONTO, ONTARIO
September 14-18, 1990
**CANADIAN ASSOCIATION OF PAEDIATRIC SURGEONS**

**L'ASSOCIATION CANADIENNE DE CHIRURGIE INFANTILE**

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<td>1977-1978 Sam Kling</td>
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Montreal  
Winnipeg  
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London
CANADIAN ASSOCIATION OF PAEDIATRIC SURGEONS
L'ASSOCIATION CANADIENNE DE CHIRURGIE INFANTILE

DIRECTORS
President                                     Stanley Mercer
Past President                               Gordon Cameron
3rd of Three Years                           Raymond Cloutier
2nd of Three Years                           Sigmund Ein
1st of Three Years                           Nathan Wiseman
Secretary-Treasurer                           David Girvan

COMMITTEE CHAIRMAN
Nominating                                   Gordon Cameron
Programme                                     Sigmund Ein
Local Arrangements                           Alex Gillis
Membership and Credentials                   Geoff Seagram
Publications                                  Don Marshall
Health Care & Manpower                       Stanley Mercer
Ethical and Moral Issues                     Jacques Ducharme
Education Fund                                Ray Postuma
Liaison to the Royal College                 Gordon Cameron
Liaison to the American College              Sigmund Ein
Archivist                                    Barry Shandling
World Federation                             Barry Shandling
Constitution and Bylaws                      Alexander Gillis
Trauma                                       David Wesson
Oncology                                     Herve Blanchard
Congenital Anomalies                         Nathan Wiseman
Residency Program                            Frank Guttman
CANADIAN ASSOCIATION
OF
PAEDIATRIC SURGEONS

L’ASSOCIATION CANADIENNE DE
CHIRURGIE INFANTILE

THUR AUG 28
NOVA SCOTIA "A"
SHERATON HOTEL

0700 REGISTRATION
coffee & donuts

CO-CHAIRMEN/LES CO-PRESIDENTS: S. EIN, J. DONALD

0800 WELCOMING REMARKS - Dr. Bernard Perry, Chairman, Department
of Surgery, Dalhousie University

0800 FLUOROSCOPIC REMOVAL OF ESOPHAGEAL FOREIGN BODIES: Steven Z.
Rubin, D.L. Mueller, Departments of Surgery and Radiology,
Alberta Children's Hospital, Calgary, Alberta

0815 CENTRAL VENOUS CATHETERS FOR CHILDREN WITH MALIGNANT DISEASE:
SURGICAL ISSUES: Gordon S. Cameron, McMaster University Medical
Centre, Hamilton, Ontario

0830 PRIMARY MALIGNANT LIVER TUMORS IN CHILDREN: OUR LAST 25 YEARS
EXPERIENCE: Juan Bass, Hamid Nasser, H. Blanchard, Sainte-
Justine Hospital, University of Montreal, Department of Surgery,
Montreal, Quebec

0845 PEDIATRIC LIVER TRANSPLANTATION: D. Grant, D. Girvan, J. Duff,
T. Frewen, W. Wall, Departments of Pediatrics and Surgery,
University of Western Ontario, London, Ontario

0900 GASTROSCHISIS - ULTRASONOGRAPHY, DIAGNOSIS, TIME OF ONSET, MODE
OF DEVELOPMENT AND THEIR INFLUENCE ON PERINATAL TREATMENT AND
RESULTS: S. Mercer, B.M. Mercer", M. D'Alton", P. Soucy,
Department of Surgery, Children's Hospital of Eastern Ontario,
University of Ottawa and the Department of Obstetrics and
Gynecology", University of Ottawa, Ottawa, Ontario

0915 ABDOMINAL WALL DEFECTS: SHOULD THEY INFLUENCE MODE OF DELIVERY?:
Joan Wenning, J.M. Giacomantonio, R.M. Liston, D. Young, The
Departments of Pediatric Surgery and Obstetrics and Gynecology,
Dalhousie University, Halifax, Nova Scotia

N. Wise

add LIVIDITY
0930 GASTROCHISIS: A FIFTEEN YEAR EXPERIENCE: Maria Di Lorenzo, Salam Yazbeck, Sainte-Justine Hospital, Montreal, Quebec

0945 THE ROLE OF ENTEROCOCCUS IN THE SEPTIC SURGICAL NEONATE: Daniel L. Mollitt, University of Florida

1000 HYPERTONICITY OF INTESTINAL SMOOTH MUSCLE AS A FACTOR OF INTESTINAL ISCHEMIA IN NECROTIZING ENTEROCOLITIS (NEC): J. Parodi, E. Grisoni, C. Ferrari, A. Kramer, E. Beven, Cleveland Metropolitan General Hospital, Case Western Reserve University and Cleveland Clinic Foundation, Cleveland, Ohio

1015 STAPHYLOCOCCAL INFECTION IN THE PEDIATRIC SURGICAL PATIENT: Daniel L. Mollitt, University of Florida

1030 GASTROINTESTINAL MANIFESTATIONS OF SIPPLE SYNDROME IN CHILDREN: IS HIRCHSPRUNG'S DISEASE MORE COMMON IN MEN TYPE II-A?: Abid H. Khan, Jean G. Desjardins, Sami Youssef, Sainte-Justine Hospital, Montreal, Quebec

1045 FAMILIAR COARCTATION OF THE AORTIC ARCH WITH BILATERAL PTOSIS: A NEW SYNDROME?: G. Cornel, G.P. Sharratt, S. Virmani, T. Rosales, A. Lacson, Divisions of Cardiac Surgery, Cardiology, Paediatrics and Pathology, The Dr. Charles A. Janeway Child Health Centre, and Memorial University of Newfoundland

1100 PREPYLORIC ATRESIA AND EPIDERMOLYSIS BULLOSA: D.A. Gillis, Philip Welch, Departments of Surgery and Pediatrics, The I.W.K. Hospital for Children, and Dalhousie University, Halifax, N.S.

1115 IS HEMI-SPLENECTOMY SUPERIOR TO TOTAL SPLENECTOMY IN ABDOMINAL STAGING OF HODGKIN'S DISEASE?: R.R. Tubbs, Frank Thomas, Donald Norris, Hugh Firo, The Cleveland Clinic Foundation, Cleveland, Ohio

1130 BILATERAL WILMS' TUMOR: Jean-Martin Laberge, Luong T. Nguyen, Yves Hosmy, The Montreal Children's Hospital and Hospital Saint-Justine, Montreal, Quebec

1145 MANAGEMENT OF THYROID NODULES IN CHILDREN. A FIFTEEN YEARS EXPERIENCE: J.G. Desjardins, A.H. Khan, M. Al-Naami, P.P. Collin, G. Leboeuf, P. Simard, J. Boisvert and L.J. Dubé, Sainte-Justine Hospital, Montreal, Quebec

CHAIRMAN/LE PRESIDENT: STANLEY MERCER, Ottawa

1200 FRED MCLEOD LECTURE

SURGERY OF ANO-RECTAL INCONTINENCE

Dr. A.S. Schärli,
Chief, Department of Pediatric Surgery
Children's Hospital,
Lucerne, Switzerland
CANADIAN ASSOCIATION OF
PAEDIATRIC SURGEONS

L'ASSOCIATION CANADIENNE DE
CHIRURGIE INFANTILE

FRI AUG 29

NOVA SCOTIA "A"
SHERATON HOTEL

CO-CHAIRMEN/LES CO-PRESIDENTS: M. GIACOMANTONIO; S. YAZBECK

0800  NEONATAL ANATOMIC AIRWAY OBSTRUCTION - DIFFERENTIAL DIAGNOSIS:
       N.E. Wiseman, D.J. deSa, Children's Hospital of Winnipeg,
       University of Manitoba, Winnipeg, Manitoba

0815  CONGENITAL TRACHEAL STENOSIS IN CHILDREN. ITS MANAGEMENT AND
       REVIEW OF LITERATURE:  A.H. Khan, P.O. Collin, H. Blanchard,
       A. Lamarre, J.G. Lapierre, P. Limoges, D. Filiatrault, M. Di
       Lorenzo, Sainte-Justine Hospital, Montreal, Quebec

0830  ANTERIOR CRICOID SPLIT FOR SUBGLOTTIC STENOSIS:  Charles E.
       Bagwell, Michael B. Marchidon, Eduardo Riff, Lindsay L. Pratt,
       UMDNJ/Rutgers Medical School at Camden, Camden, New Jersey

0845  TRACHEOMALACIA IN INFANTS AND CHILDREN:  D.A. Gillis,
       B. McIntyre, The I.W.K. Hospital for Children and the Department
       of Surgery, Dalhousie University, Halifax, Nova Scotia

0900  THE EMERGING PATTERN OF PAEDIATRIC DAY CARE SURGERY:  C.R. Moir,
       G.K. Blair, G.C. Fraser, R.H. Marshall, Children's Hospital,
       Vancouver, British Columbia

0915  THE PEDIATRIC GENERAL SURGERY UNDERGRADUATE CURRICULUM:  WHAT
       SHOULD MEDICAL STUDENTS LEARN?:  Ray Postuma, Education
       Committee, Canadian Association of Paediatric Surgeons

0930  IMPROVEMENT IN PULMONARY FUNCTION FOLLOWING SURGERY FOR
       PULMONARY INTERSTITIAL EMPHYSEMA IN PREMATURITY INFANTS:
       Gustavo Stringel, Dale Coln, Children's Hospital of Eastern
       Ontario, Ottawa, Ontario and the University of Texas Health
       Science Center, Southwestern Medical School, Dallas, Texas
SYLVATIC PULMONARY HYDATID DISEASE IN CHILDREN: Abid H. Khan, Pierre-Paul Collin, Mohamed Sellami, Martine Favreau-Ethier, Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal, Quebec

PULMONARY SEQUESTRATION. A 15 YEAR EXPERIENCE: Pierre-Paul Collin, Jean G. Desjardine, Abid H. Khan, Mohamed Al-Naami, Sainte-Justine Hospital, Montreal, Quebec

THE ANAL SPHINCTER FORCE IN HEALTH AND IN DISEASE: B. Shandling, R.F. Gilmour, The Hospital For Sick Children, Toronto, Ontario

FOCAL ECTASIA OF THE TERMINAL BOWEL ACCOMPANYING LOW ANAL DEFORMITIES: Raymond Cloutier, Le Centre Hospitalier de l'Université Laval,

EXPERIENCE WITH POSTERIOR SAGITTAL ANORECTOPLASTY: Om Tucker, Thomas Baeul, Robert S. Bloss, Baylor College of Medicine and Texas Children's Hospital

REOPERATION BY ANTERIOR PERINEAL APPROACH FOR MISSED PUBORECTALIS: Juan Bass, Salam Yazbeck, Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal, Quebec

EARLY RESULTS WITH THE J-POUCH PROCEDURE IN CHILDREN: David E. Wesson, Department of Surgery, The Hospital For Sick Children and the University of Toronto, Toronto, Ontario

A TEN YEAR EXPERIENCE WITH THE PEDIATRIC KOCK POUCH: Sigmund H. Ein, The Hospital For Sick Children, Toronto, Ontario

EXPERIENCES WITH THE USE OF THE PORT-A-CATH© IN CHILDHOOD: P. Soucy, Department of Surgery, Division of General Surgery, Children's Hospital of Eastern Ontario, Ottawa, Ontario

NEONATAL PHARYNGO-ESOPHAGEAL PERFORATION MIMICKING ESOPHAGEAL ATRESIA - CLUES TO DIAGNOSIS: G.K. Blair, R.M. Filler, D. Theodorescu, Hospital For Sick Children, Toronto, Ontario

AN ALTERNATIVE TO AN INTERPOSITION PROCEDURE IN ESOPHAGEAL ATRESIA: Donald G. Marshall, Clinical Professor of Surgery, Division of Pediatric Surgery, St. Joseph's Hospital, London, Ontario

ESOPHAGEAL FUNCTION FOLLOWING LYLAVITIS REPAIR OF LONG GAP ESOPHAGEAL ATRESIA: A Schneeberger, R.B. Scott, H. Machida, S.Z. Rupin, Departments of Surgery and Pediatrics, University of Calgary and Alberta Children's Hospital, Calgary, Alberta

ESOPHAGEAL PERFORATION IN THE NEONATE - AN EMERGING PROBLEM IN THE NEWBORN NURSERY: Irwin H. Krasna, David Rosenfeld, Mark Hiatt, Thomas Hegyi, UMDNJ/Rutgers Medical School, New Brunswick, New Jersey
CANADIAN ASSOCIATION OF PAEDIATRIC SURGEONS
L'ASSOCIATION CANADIENNE DE CHIRURGIE INFANTILE

SAT AUG 30

IWK HOSPITAL FOR CHILDREN

Program Can. meetj

CO-CHAIRMEN/LES CO-PRESIDENTS: H. WISEMAN

0830 CONGENITAL ENDODERMAL SINUS OF THE PENIS: R. Kennedy, A. Lacson, Departments of Surgery and Pathology, The Charles A. Janeway Child Health Centre, and Memorial University of Newfoundland

0840 TORSION OF AN UNDESCENDED INTRA-ABDOMINAL BENIGN TESTICULAR TERATOMA: Sigmund H. Ein, The Hospital For Sick Children, Toronto, Ontario

0850 THE USE OF CT SCAN TO DETERMINE TYPE OF IMPERFORATED ANUS: Juan Bass, Sami Youssef, Denis Filiatrault, Sainte-Justine Hospital, Montreal, Quebec

0900 TRANSCRECTAL CATHETER DRAINAGE OF PELVIC ABSCESSES UNDER ULTRASOUND GUIDANCE - REPORT OF FOUR CASES: Irwin H. Krasna, John Nosher, Gary Needel, UMDNJ/Rutgers Medical School, New Brunswick, New Jersey

0910 INTRA-OPERATIVE BALLOON OCCLUSION OF CONGENITAL PULMONARY ARTERIOVENOUS FISTULA: N.E. Wiseman, Children's Hospital of Winnipeg, University of Manitoba, Winnipeg, Manitoba

0920 EXTRASPINAL EPENDYMOMA: Shirley Chou, Pierre Soucy, Children's Hospital of Eastern Ontario, Ottawa, Ontario

0930 EXTERNAL PELVIC FIXATION IN THE TREATMENT OF BLADDER EXTROPHY: J.J. Leahey, D.C.S. Brown, J.C. Hyndman, Mitchell Hathway, Dalhousie University, Halifax, Nova Scotia

0940 COLONIC ATRESIA ASSOCIATED WITH SEGMENTAL DILATATION OF THE ILEUM: A CASE REPORT: Luong T. Nguyen, Dan Doody, Department of Surgery, The Montreal Children's Hospital and McGill University, Montreal, Quebec

11
0950 PAEDIATRIC IMPLICATIONS OF MULTIPLE ENDOCRINE NEOPLASIA:
D.P. Girvan, R.L. Holliday, Division of Paediatric Surgery,
Children's Hospital of Western Ontario, London, Ontario

1000 ABDOMINO-SCROTAL HYDROCELE. A CAUSE OF ABDOMINAL MASS IN
CHILDREN. A CASE REPORT AND REVIEW OF THE LITERATURE:
Abid H. Khan, Salam Yazbeck, Sainte-Justine Hospital,
University of Montreal, Department of Surgery, Montreal,
Quebec

CHAIRMAN/LE PRESIDENT: ALEX GILLIS, HALIFAX

1015 CASE PRESENTATIONS

CHAIRMAN/LE PRESIDENT: STANLEY MERCER, Ottawa

1115 ANNUAL BUSINESS MEETING
REUNION D'AFFAIRES ANNUELLE
abstracts
FLUOROSCOPIC REMOVAL OF ESOPHAGEAL FOREIGN BODIES
Steven Z. Rubin; D. L. Mueller
Departments of Surgery and Radiology
Alberta Children’s Hospital, Calgary

Thirty-eight children with inorganic smooth radio-opaque foreign bodies in the esophagus were evaluated. Removal of the impacted object without sedation by means of a Foley catheter under fluoroscopic control was attempted. An ultra low-dose fluoroscopic unit was used. In 35 children the foreign body (coin) was either removed (29) or advanced into the stomach (6). No complications of this procedure were observed. The 35 children were discharged after observation in the Emergency Room.

Three children in whom the foreign body could not be removed under fluoroscopic control had successful removal by endoscopy (2) or esophagotomy (1). Fluoroscopic removal of esophageal foreign bodies using a Foley catheter is a safe technique when restricted to smooth surfaced radio-opaque objects recently impacted in an otherwise normal esophagus.

CENTRAL VENOUS CATHETERS FOR CHILDREN WITH MALIGNANT DISEASE: SURGICAL ISSUES
Gordon S. Cameron
McMaster University Medical Centre, Hamilton

Long term central venous catheters have eliminated the fear of pain and repeated venopunctures for blood sampling and chemotherapy for children with malignant disease, but problems still exist for the surgeon. Issues include choice of catheter, site and technique of placement, prevention of infection and accidental displacement, and removal.

Five years' experience with 102 catheter placements in 81 children with leukemia or malignant tumors has been reviewed. Various cuffed silastic catheters have been tried (82 Broviac, 14 Hickman, 5 Pediatric Broviac, 1 Cook Double Lumen). These were tunneled from the anterior chest and placed through various veins (51 external jugular, 20 common facial, 16 internal jugular, 11 cephalic, 4 others).

The 102 catheters remained in place an average of 313 days (31,897 patient-days), maintained at home under close nursing supervision. Twenty catheters are currently functioning. Thirty-four patients died with catheters intact. Forty-eight catheters have been removed because of completion of treatment (24), infection (10), accidental dislodgement (11), and other reasons (3).

The advantages of central venous catheters are so great that almost all parents now agree to their use, despite the possible problems of maintenance, dislodgement and infection.

We now routinely use Broviac catheters using the "no touch technique", general anesthesia, and antibiotic prophylaxis. The cuff is placed more deeply, and the catheter is secured by suture for two weeks. A strict protocol is followed for maintenance care.

We hope that these modifications of our protocol will further reduce the incidence of these problems.
PRIMARY MALIGNANT LIVER TUMORS IN CHILDREN: OUR LAST 25 YEARS EXPERIENCE.
Juan Bass M.D., Hamid Nasser M.D., H. Blanchard M.D.
Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal.

During the past 25 years, 26 patients (15 males, 11 females), with primary malignant liver tumors were seen in the department of pediatric surgery at H.S.J. Montreal. One patient whose parents refused any kind of treatment is excluded from this series, leaving 25 patients which are presented here. Eleven (44%) had Hepatoblastomas, 9 (35%) Hepatocarcinomas and 1 (4%) of each of the following: Mesenchymoma, Mixed tumor, Rhabdomyosarcoma, Hepatocarcinoma and one patient with unclear histology. The clinical presentation was: hepatomegaly 24 (48%), increased abdominal girth 18 (72%), vomiting 13 (52%), fever 13 (52%), anorexia 13 (52%), abdominal pain 12 (48%) abdominal collateral skin circulation 9 (36%), weight loss 5 (20%), splenomegaly 3 (12%), precocious puberty 2 (8%).

Thrombocytosis exceeding 500,000 was present in 9/11 (81%) patients with Hepatoblastoma (more than 1 million in 4 of these) and 3/9 (33,3%) of patients with Hepatocarcinoma. The overall survival was 24% (6/25). The survival for the Hepatoblastoma group was 45% (5/11) (3 months to 12 years post operatively). The survival for Hepatocarcinomas was 11% (1/9) alive at 9 years postoperatively.

All the survivors received Chemotherapy postoperatively and in 2 Radiotherapy was added. Resection for cure was possible in 4/9 (44%) of Hepatoblastomas 2/9 (22%) Hepatocarcinomas. The Rhabdomyosarcoma, Mesenchymoma and Mixed tumor were also resected. The most important factor in survival was complete excision.

PEdiATriC Liver tRANSPLaNTAtIoN

D. Grant, D. Girvan, J. Duff, T. Frewen, W. Wall

Departments of Pediatrics and Surgery
University of Western Ontario
London, Ontario.

Six children from 5-16 years underwent orthotopic liver transplantation (OLT) for the following indications: fulminant liver failure due to Wilson's disease (1); progressive non-A non-B hepatitis (1); and cirrhosis due to chronic active hepatitis (2), biliary atresia (1), and biliary hypoplasia (1). The median intra-operative transfusion was 11 units of packed cells (range 4-30). The median duration of surgery was 6.5 hours (range 6.0-7.25).

The children received cyclosporine and steroids. All had at least one rejection episode; two died of rejection. Four developed clinically significant cytomegalovirus infections. One patient had two surgical complications; a wound dehiscence and a bile duct stricture. The median hospital stay was 56 days.

Four patients are currently alive 12, 109, 400, and 685 days post-OLT. Two children have returned to school, one 4 months and the other 8 months after OLT.

Liver transplantation is a valuable treatment for selected infants and children with end-stage liver disease. When liver transplantation is successful, children can resume normal activities.
GASTROSCHISIS - ULTRASONOGRAPHY, DIAGNOSIS, TIME OF ONSET, MODE OF DEVELOPMENT AND THEIR INFLUENCE ON PERNATAL TREATMENT AND RESULTS.
S. Mercer, M.D., FRCS(C), B.M. Mercer, M.D., M. D’Alton, M.D., FRCS(C),
P. Soucy, M.D., FRCS(C)
Department of Surgery, Children’s Hospital of Eastern Ontario,
University of Ottawa and the Department of Obstetrics and Gynecology,
University of Ottawa, Ottawa, Ontario.

The embryology and times of onset of gastroschisis are poorly understood. 22 cases have been seen and reviewed at the Children’s Hospital of Eastern Ontario from 1975-86. 16 cases were judged to be of the perinatal and 6 of the early type. The actual time of development was clear in one and was probable in 1 other case on ultrasonography. 20 cases were closed primarily (91%) and 2 by staging (Silon Pouch). 19 survived (86.30%). All umbilical vasculature was normal. Other anomalies were rare and unimportant. All cases were right sided. Two clear examples of rupture of the umbilical ring are documented. Ultrasonography was performed in 10 cases, usually for intra-uterine growth retardation (I.U.G.R.) and gastroschisis was diagnosed in 9 of these. Delivery was by Caesarean section in 6 (27%). Marked meconium staining occurred in 16 (73%) and subglottic aspiration of meconium in 7 of these (32%). The average weight was 2450 gm. in all cases of I.U.G.R. ultrasonography is urged with careful examination of the umbilical area to establish the presence and time of onset of gastroschisis.

"ABDOMINAL WALL DEFORMITIES: SHOULD THEY INFLUENCE MODE OF DELIVERY?"
Joan Wenning, M.D., J. M. Giacomantonio, N.D., F.R.C.S.(C),
R.M. Liston, M.D., M.R.C.O.G., F.R.C.S.(C), and
D. Young, M.D., F.R.C.S.(C)
THE DEPARTMENTS OF PEDIATRIC SURGERY AND OBSTETRICS
AND GYNECOLOGY, DALHousie UNIVERSITY, HALIFAX, N.S.

The records of 76 consecutive infants born with abdominal wall defects (AWD) between 1973 and 1985 were reviewed to determine (a) the influence of the AWD on the course of labour and (b) the influence of delivery mode on the infant’s post-natal course.
Information extracted included description of the AWD, mode of delivery, indications for mode of delivery, condition of baby at birth, condition of sac in omphalocele, condition of bowel in gastroschisis, and final outcome.

Forty-six infants had gastroschisis and 28 had omphalocele.

Of the 28 infants with omphalocele, 18 were delivered vaginally and 9 were delivered by Cesarean section. The mode of delivery in one case was not recorded. Of those delivered vaginally, two had ruptured sacs; no infants in the Cesarean section group had a ruptured sac at delivery.

In the gastroschisis group, 11 infants were delivered by Cesarean section and 34 infants delivered vaginally. Two patients of the 34 infants delivered vaginally had a bowel perforation; one of 11 infants delivered by Cesarean section had a bowel perforation. Appar scores were not adversely affected in the AWD patients delivered vaginally when compared with average scores for similar gestation age infants in the general population, and when associated anomalies were considered. Also the incidence of soft tissue dystocia was not increased in this population over the expected, suggesting that labour was not adversely influenced.

The authors conclude that mode of delivery should not be influenced solely by the prenatal diagnosis of an abdominal wall defect.
GASTROCHISIS: A FIFTEEN YEAR EXPERIENCE.

Marja Di Lorenzo, M.D. and Salam Yazbeck, M.D.

Sainte-Justine Hospital, Montreal.

Between January 1, 1971 and December 31, 1985, 59 cases of gastrochisis were treated at Hopital Sainte-Justine in Montreal. There were 22 (37.3%) girls and 37 (62.7%) boys, including one set of fraternal twins. The average birth weight was 2334.8 grams. Associated anomalies were non-digestive in 6 patients and digestive in 9 (5 Meckel's diverticulum, 3 intestinal atresias and 1 ectopic pancreas). In the period before 1978, 6/19 patients (31.6%) were closed primarily at the time of surgery and 13/19 patients (68.4%) had silon pouch closure. After 1978, 33/40 patients (82.5%) had primary closure and 7/40 (17.5%) had a silon pouch. The overall complication rate for the primary closure group was 35% with a 5% mortality rate, whereas those closed with a silon pouch had a 66.2% complication rate with 26.4% mortality. Neither birth weight or gestational age influenced mortality. The average age at first oral feeding for the primary closure group and the silon pouch group was not significantly different at 17.7 and 19.3 days respectively. But a significant difference in the length of hospital stay was observed. This was 44.3 days for the primary closures and 60.8 days for the silon pouch closures. Our series demonstrates a definite favourable trend in the results of treatment of this malformation. The most important factor affecting these results in a change in surgical approach. Primary abdominal wall closure being usually possible should always be attempted.

The Role of Enterococcus in the Septic Surgical Neonate

Daniel L. Mollitt, M.D.

University of Florida

With recent changes in the antimicrobial therapy of sepsis, unlikely pathogens have emerged in adult series. One such organism, enterococcus, is an opportunistic invader, previously rarely associated with sepsis and insensitive to the newer antibiotics. As the approach to sepsis in the neonate has similarly changed, this multi-institutional study was undertaken to review the role of enterococcus in serious infection in the surgical newborn.

Culture results from newborns with peritonitis (NEC) and/or septicemia between 1982 and 1985 were reviewed in three different institutions for the incidence of enterococcal involvement. Enterococcus was recovered from peritoneal fluid in 20% of NEC cases. There was no significant yearly variation in this percentage. In contrast, blood cultures from septic neonates yielded enterococcus in 8% of cases overall, but there has been a significant yearly increase from 4.2% in 1982 to 12.2% in 1985 (p < 0.05).

Although the role of enterococcus in intra-abdominal sepsis in the newborn has remained stable, this pathogen has emerged as a significant cause of bacteremic sepsis in the surgical neonate. This change may be secondary to the increasing role of the newer broad spectrum antimicrobial and should prompt consideration of this organism in the evaluation and therapy of the septic surgical newborn.
HYPERTONICITY OF INTESTINAL SMOOTH MUSCLE AS A FACTOR OF INTESTINAL ISCHEMIA IN NECROTIZING ENTEROCOLITIS (NEC).

J. Parodi, M.D., E. Grisoni, M.D., C. Ferrario, M.D., A. Kramer, M.D., and E. Beven, M.D.

Cleveland Metropolitan General Hospital, Case Western Reserve University and Cleveland Clinic Foundation, Cleveland, Ohio

Necrotizing enterocolitis (NEC) is thought to be secondary to mucosal ischemia. Blood flow to the submucosal plexus is derived from vessels traversing three separate layers of viscer al smooth muscle (longitudinal, circular and muscularis mucosa). It is hypothesized that an increase in their tone might elicit mucosal ischemia. The intestinal intraluminal pressure (IIP) and the superior mesenteric artery blood flow were evaluated in 23 dogs before and after either ligation of the superior mesenteric artery (LSMA) or the Neostigmine infusion into the superior mesenteric artery (NSMA). The intestinal microcirculation was assessed by either silicone rubber casting, India ink or arteriography. Ten minutes after LSMA there was a considerable increase in peristalsis, IIP and inability to fill the intestinal microcirculation by the three methods described. Mucosal necrosis was present 3 hours later. In the NSMA group after a transient increase in mesenteric flow, the IIP rose 750% while the mesenteric flow fell by 40% with mucosal necrosis in 1 hour. When myotomy was performed on the antimesenteric border, mucosal necrosis was prevented. In a third group Neostigmine infused (femoral artery) in the hind limb demonstrated vasodilating effects. The data indicate that an increase in the myogenic tone and frequency of contraction of intestinal smooth muscle can produce mucosal ischemia, thus intestinal hypertonicity may be an important factor in the pathogenesis of intestinal ischemia and possible NEC. The effects of Neostigmine in these experiments raise a question regarding its use during anesthesia in neonates with intestinal low flow states.

Staphylococcal Infection in the Pediatric Surgical Patient

Daniel L. Mollitt, M.D.
University of Florida

This report reviews the role of Staphylococcus in pediatric surgical infectious complications. Between July, 1982 and July, 1985, 190 nosocomial infections were reported on the Pediatric Surgical Service. Staphylococcus was the most common pathogen recovered, being isolated in 75 total cases. 75% of these infections involved coagulase positive Staph. In 39 cases, these were recovered from infected wounds following clean and clean contaminated operations. Overall, coag (+) Staph was the leading cause of wound infection during the period studied. An additional 11 children suffered coag (+) Staph bacteremia. Eight of these were unassociated with a known focus of infection. Of the total coag (+) isolates recovered, 25% were multiple drug resistant strains.

The remaining nosocomial staph infections were secondary to coagulase negative organisms. Most frequently (48%) these involved bacteremia associated with indwelling catheters. Coag (-) Staph was also implicated in six wound infections.

Despite recent "advances" in antimicrobial therapy, Staphylococcus remains the most common cause of nosocomial infection in the pediatric surgical patient. Coagulase (+) Staph is primarily a wound pathogen complicating uncontaminated procedures. In contrast, coagulase (-) Staph, although occasionally implicated in wound infection, is most commonly associated with systemic invasion and has become a prominent cause of bacteremia associated with indwelling lines. A significant number of these hospital acquired Staphylococci remain resistant to usual antibiotic therapy, including the newer antimicrobials available.
GASTROINTESTINAL MANIFESTATIONS OF SIPPLE SYNDROME IN CHILDREN: IS HIRSCHSPRUNG'S DISEASE MORE COMMON IN MEN TYPE II-A? Abid H. Khan, M.D.; Jean G. Desjardins, M.D.; Sami Yousef, M.D.

Sainte-Justine Hospital, Montreal.

The diagnosis and management of patients with MEN type II-A and type II-B are of special challenge to the pediatric surgeons. The characteristic phenotypic features of MEN II-B are frequently absent in early life.

The MEN type II-A has no characteristic features thereby posing a formidable diagnostic problem if detailed family history is not available. We are reporting five patients, two with type II-A and three with type II-B. All our patients manifested with symptoms and signs of bowel obstruction during the neonatal period. We have found an unusual association of Hirschprung's disease in the families with MEN type II-A. Two of our patients with type II-B had multiple hospital admissions for pseudo-bowel obstruction. One of these two was operated upon twice, once for the diagnosis of malrotation and a second time for pseudo-obstruction. In these two patients the anorectal manometry was normal, but the rectal biopsy was characteristic. The two patients belonging to the family of MEN II-A were appropriately treated for Hirschprung's disease. In a kindred of 92 individuals in the family of MEN II-A, eight patients had possible Hirschprung's disease (five patients histologically proven) which to our knowledge is an extremely high incidence. The possibility of Sipple syndrome should be considered in the newborn, in the differential diagnosis of bowel obstruction.

Familial Coarctation of the Aortic Arch with Bilateral Ptosis. A new syndrome?

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Divisions of cardiac surgery, cardiology, paediatrics and pathology. The Dr. Charles A. Janeway Child Health Centre, and Memorial University of Newfoundland.

A Newfoundland family recently came to our attention with the apparently unique syndrome of complex coarctation of the aortic arch, bilateral stenoses of the subclavian arteries, bilateral ptosis and bronchial asthma. This syndrome appears to have affected at least four generations, and has the characteristics of an autosomal dominant inheritance. Details of clinical findings, family tree, surgical procedures and histology are described.
PREPYLORIC ATRESIA AND EPIDERMOLYSIS BULLOSA
D.A. Gillis, M.D., F.R.C.S.(C)
and
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Children, and Dalhousie University, Halifax, Nova Scotia

Prepyloric atresia and epidermolysis bullosa are rare con-
genital anomalies. Their coexistence in newborns has been
previously reported and the combination is also known to
occur in siblings. A fatal outcome has been predicted for
most.

One set of siblings and two other infants form the basis of
this review. The diagnosis was suspected by prenatal ultra-
sonography in one. Maternal hydramnios was a constant
feature, and all infants presented with repetitive non-
bilious vomiting. Radiographic diagnosis was straightfor-
mard.

The skin lesions showed great variation. In all there was
early widespread blistering, and one infant had a compli-
cating staph septicemia. The clinical and histologic
features suggested that the skin lesions represented the
lethalis variety of epidermolysis bullosa. However, the
clinical course in the first 3 infants turned out to be
benign; the fourth is still in hospital for postoperative
care.

Primary gastroduodenostomy was carried out successfully
in all.

The skin lesions may suggest a much poorer prognosis than
has been justified by our experience.

Is Hemi-splenectomy Superior to Total Splenectomy in Abdominal Stagir
of Hodgkin's disease?
R.R. Tubbs, D.D., Frank Thomas, M.D., Donald Norris, M.D. and Hugh V.
Fior, M.D.
The Cleveland Clinic Foundation
The spleens removed in sixty-six (66) consecutive staging laparotomic
have been studied. Two spleens contained non-Hodgkin's Lymphoma and
were excluded.

The spleens were divided from superior to inferior pole through the
hilium into anterior and posterior halves, each half was divided into
superior, mid and inferior sectors. Each sector was studied and
recorded as positive or negative.

Of the 64 spleens, 20 were involved by Hodgkin's disease.

All (6) sectors involved 2
(4) sectors involved 2
(3) sectors involved 3

The involvement was such that the entire spleen or a lesser amount,
but including the inferior pole, was involved in 16 spleens.
Involvement was in the mid sector, with or without upper sectors, in
4 spleens; involvement could not be determined accurately in 1 spleen.
A hemi-splenectomy of the inferior half of the spleen would have
included involved tissue in 19 spleens. The result in one spleen was
indeterminate.

Of the 20 patients whose spleens were positive, 9 had other abdomi-
sal sites involved, two of these sites were in the liver and 7 in lymph
nodes. Other studies done in retrospect have suggested that partial
splenectomy would overlook disease in a significant number of cases of
Hodgkin's disease. In this study, only the one spleen in which sector
involvement was indeterminate might have resulted in a false negative
result with a hemi-splenectomy. Hemi-splenectomy conserves vital
splenic functions without loss of diagnostic accuracy.
Bilateral Wilms' Tumor

Jean-Martin Laberge, Luong T. Nguyen, Yves Homsy

The Montreal Children's Hospital & Hôpital Sainte-Justine

Bilaterality is uncommon in Wilms' tumor, being present in 5 to 8% of the cases. We report the combined experience of 2 children's hospitals in one city over a 20 year period. We encountered 10 cases of synchronous bilateral nephroblastoma (NWT III stage B). Age at diagnosis ranged from 9 to 41 months (mean 21 months). There were 5 girls and 5 boys. Associated findings include: nephroblastomatosis in 4 cases (40%), one of which also had a familial history; undescended testis in 2 cases; and minor anomalies in 2 other cases. Surgical treatment consisted of unilaterial nephrectomy with contralateral partial nephrectomy or tumorectomy in 6 cases, nephrectomy with contralateral biopsy only in 3 cases, and the other patient had bilateral biopsies initially, followed at a later date by partial nephrectomy on one side. All patients received chemotherapy; actinomycin D (AMD) only was used in the oldest case, vincristine and AMD in 7 cases, to which was added adriamycin and cyclophosphamide in one case each. Seven patients received radiation therapy. Eight out of the 10 patients survived (80%); all 8 are well, off chemotherapy and with no evidence of disease from 3 1/2 to 19 years since diagnosis. Two patients suffer from mild to moderate chronic renal failure. Because of the effectiveness of modern chemotherapy and the favorable outcome in most cases, in 1982 we adopted an approach to bilateral Wilms' that is aimed towards maximal preservation of renal parenchyma.

MANAGEMENT OF THYROID NODULES IN CHILDREN. A FIFTEEN YEARS EXPERIENCE


Santé-Justine Hospital, Montreal.

Data on 52 children operated by the same surgeon is reviewed. The patients were between 3 and 19 years old at the time of surgery. Thirty-four were females and 18 males. Only 8 patients were symptomatic and were complaining of discomfort in the cervical area which led to the diagnosis. All the patients had a palpable mass. None of our patients had history of irradiation in infancy. All the patients were euthyroid at the time of surgery. Seventeen patients had a left sided single nodule and thirty a right sided one. Four of our patients had bilateral single nodule and 3 patients had multiple nodules. Branchial cyst was confused with the cold nodule in four patients. Out of two patients worked up for cold nodule one had a matured teratoma and another had an intrathyroid thyroglossal cyst.

Comparative use of ultrasound and Ct scan in the diagnosis and management of thyroid nodules will be discussed. Radiosotopic examination was done in fifty patients. In our opinion radiolosotopic examination is the single most important test leading to surgery as a very high percentage of cold nodules in children are reported to be malignant. In this series the rate of cancer is 30%. We believe that lobectomy and isthectomy is the treatment of choice for most small single lesions. Total thyroidectomy or near total thyroidectomy is needed only when the tumor is large and when there is marked cellular atypia or tumor invasion beyond the thyroid capsule on frozen or permanent section. Modified radical neck dissection is done only when pathological nodes are confirmed. All our patients are alive and are routinely followed.
NEONATAL ANATOMIC AIRWAY OBSTRUCTION - DIFFERENTIAL DIAGNOSIS

N. E. Wiseman, D. J. deSa
Children's Hospital of Winnipeg, University of Manitoba

Infants with anatomic airway obstruction presenting at birth usually succumb following unsuccessful attempt at resuscitation in the first minutes of life. Five patients with this presentation were reviewed in order to more clearly understand the nature of the obstructing lesion and determine whether surgical salvage is possible. The diagnoses in the patients included: laryngeal atresia (1), tracheal atresia (2), critical tracheal stenosis (1), and tracheal agenesis (1). In each infant the neonatal intubation was impossible and 2 patients expired in the first minutes of life. One patient with tracheal atresia and 1 patient with critical tracheal stenosis had successful resuscitation. The patient with tracheal agenesis was ventilated through an endotracheal tube placed in the esophagus and expired at 48 hours of age with respiratory failure. The infant with tracheal atresia had multiple associated anomalies and expired at age 4 months also with chronic respiratory failure. The patient with critical tracheal stenosis died at age 6 months with cor pulmonale. Pathologic examination of the infants' airways at postmortem revealed cartilaginous obstruction in 4 infants and complete absence of the trachea in the 5th infant. In 3 infants there were major multiple associated anomalies and in 2 infants significant pulmonary hypoplasia was noted. Although fetal ascites (present in 2 infants) may be a clue to the antenatal diagnosis of airway obstruction aggressive surgical intervention is unlikely to succeed in view of the major associated problems.

CONGENITAL TRACHEAL STENOSIS IN CHILDREN. ITS MANAGEMENT AND REVIEW OF LITERATURE.

Sainte-Justine Hospital, Montreal.

Congenital tracheal stenosis is rare. In a series of 52 patients of tracheal obstruction disease in children treated at Massachusetts General Hospital in the last 20 years, reported by H.C. Grillo, only three patients had tracheal resection and reconstruction for congenital stenosis. We are reporting three patients having congenital tracheal stenosis treated at our institution in the last two years. All three patients had resection and reconstruction with primary end to end anastomosis. Two of our patients had severe respiratory distress in neonatal period, one of these patients had successful tracheal resection and reconstruction at the age of about 4 months and another had surgery at seven weeks of age. Another patient operated on the age of 9 expired 3 months after surgery. This patient had double stenosis, one in the trachea and another in the main bronchus. We believe that management, resection and reconstruction of congenital stenotic tracheobronchial lesions need careful planning in collaboration with neonatologist, pneumologist and anaesthesiologist. The timing of surgery and meticulous technique is important. The surgical resection with primary reconstruction is the treatment of choice.
ANTERIOR CRICOID SPLIT FOR SUBGLOTTIC STENOESIS
Charles E. Bagwell, MD, Michael B. Marchildon, MD, Eduardo Riff, MD
and Lindsay L. Pratt, MD
UMDNJ/Rutgers Medical School at Camden, Camden, New Jersey

Subglottic stenosis is a common problem which often results from ventilatory support necessary in the premature infant. Previous methods of treatment include tracheostomy with dilatation of the stenosis, steroid injections, and procedures to stent the trachea. Results of these methods have been unsatisfactory because of the multiple procedures needed to obtain an adequate airway as well as the high mortality from long-term tracheostomy in infants.

In the past 2 years, 7 infants have undergone an anterior cricoid split for tight subglottic stenosis and airway obstruction. Of the 7 patients, 6 were premature, 5 of whom required ventilatory support ranging from 4-30+ days. Each child presented in respiratory distress with symptoms present in 5 children from 1-11 (mean 3.3) months after birth. Bronchoscopy identified the site of obstruction in each case as subglottic, with a narrow lumen, usually less than 2.5 mm in diameter. Anterior cricoid split was performed at ages ranging from 2-11 (mean 5.0) months. All children were extubated at 10-14 days and subsequently discharged home asymptomatic; none required postop tracheostomy. Complications developed in 3 children, including atelectasis, otorrhea, phlebitis, and tracheoepiglottic fistula in 2, 1 of whom required operative closure. One child was rebronchoscoped at three weeks postop for bronchospasm, which resolved on amnophylline. The subglottic trachea was normal. At followup ranging from 2-21 (mean 8.3) months, no child has symptoms referable to the subglottic region. In 1 patient, a brief period of respiratory distress recurred 3 months postoperatively due to tracheomalacia. Bronchoscopy in all 7 children showed a normal subglottic region, although findings of tonsillar enlargement were present in 1 child and tracheomalacia in a second. The excellent results in this series with no mortality and no serious morbidity indicate that the anterior cricoid split procedure is both a safe and effective operation for the treatment of severe subglottic stenosis in infants.

TRACHEOMALACIA IN INFANTS AND CHILDREN
D.A. Gillis, M.D., F.R.C.S.(C)
and
B. McIntyre, M.D.
The I.W.K. Hospital for Children and the Department of Surgery, Dalhousie University, Halifax, Nova Scotia

Tracheomalacia may result from an isolated congenital deficiency of essential supporting elements in the tracheal wall (primary), or may be encountered in association with a variety of congenital or acquired abnormalities (secondary). Chief among the latter are esophageal atresia and mediastinal vascular anomalies. The natural history of the two groups differs significantly.

During the past ten years we have managed 42 patients with symptomatic tracheomalacia. Fourteen patients with the primary type presented typically in early infancy and tended to have a benign clinical course. Only two were operated upon. All patients in this group did well.

The 28 patients with secondary tracheomalacia showed more variation in clinical features. Twelve had arch anomalies, all of which were managed successfully by operative revision. The remainder had a more severe clinical course. Half required surgical intervention (aortopecty or tracheotomy) and recovery was generally much more prolonged. Bronchomalacia was identified in several infants. There were two deaths in this group.

It is important to identify associated lesions because of their effects on natural history and therapeutic approaches.
The Emerging Pattern of Paediatric Day Care Surgery

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Children's Hospital, Vancouver, B.C.

The utilization of short stay surgical facilities is increasing and indications for daycare surgery for children are becoming more diverse. These trends were observed in a review of daycare surgery performed at British Columbia Children's Hospital during the years 1984 and 1985.

During those years 688 hernia repairs were undertaken, as were 76 ano-rectal procedures such as anal fistulotomy, drainage of abscesses etc. In addition, 127 orchidopexies were performed which indicated a increase when compared to earlier years. Further procedures included the excision of 38 branchial cleft anomalies and 17 salivary gland lesions, as well as the performance of 95 tracheobronchial endoscopies including the removal of 25 foreign bodies.

Twenty-two children, initially brought in for daycare surgery require actual admission to the hospital for such reasons as post anaesthetic concern, swelling at the operative site, or the procedure being more complex than initially anticipated. Half of these patients were under the age of 1 year. A special subgroup of high risk infants were identified - the previous premature infant less than three months of age.

In our opinion infants who are less than three months of age - especially if born prematurely - should be admitted to the hospital for surgery.

THE PEDIATRIC GENERAL SURGERY UNDERGRADUATE CURRICULUM: What should medical students learn?

Ray Postuma, M.D.
Education Committee, Canadian Association of Pediatric Surgeons

Fifty percent of today's medical graduates enter primary care practice. Hence the quality of the Undergraduate Program can significantly affect overall patient care including that of infants and children requiring surgical treatment. There are no references to Pediatric Surgery Undergraduate Curriculum in the medical literature. A medical undergraduate curriculum for Pediatric General Surgery was therefore prepared by the Education Committee of our Association and circulated for feedback along with a questionnaire to 78 of its members in North America. Although the response to the proposed curriculum was generally positive, members felt that its content is possibly too exhaustive for medical students. Hence, a revised problem based curriculum will be presented. As expected the teaching of Pediatric Surgery by Members of the Association during 1985-1986 varied widely in quantity and style. We propose that the Association and its members maintain an increasing input into the Medical Undergraduate Program and thereby improve the overall care of infants and children requiring surgical treatment. They would also provide appropriate role models for students considering a career in Pediatric Surgery.
IMPROVEMENT IN PULMONARY FUNCTION FOLLOWING SURGERY FOR PULMONARY INTERSTITIAL EMPHYSEMA IN PREMATURE INFANTS
Gustavo Stringel, M.D. and Dale Collin, M.D.
Children's Hospital of Eastern Ontario, Ottawa, Canada and The Univ. of Texas Health Science Center, Southwestern Med. School, Dallas, TX.

Pulmonary interstitial emphysema occurs in 20% of infants with hyaline membrane disease. It can cause hyperinflation of one lung or lobe, interfering with ventilation and displacing the mediastinum to the opposite side causing embarrassment of the contralateral lung; it can lead to vascular obstruction and also cause pneumothorax or pneumomediastinum. If progressive or unresponsive to treatment, it can rapidly cause the demise of a patient.

We are reporting three premature infants with severe pulmonary interstitial emphysema who were ventilator dependent until lobectomies were performed to relieve pulmonary compression. All failed medical management.

An 880gm infant had a right middle and lower lobectomy and subsequently right upper lobectomy. Following surgery, she was off the ventilator in seven days. Her pulmonary recovery was excellent but she died at one year of age due to complications of total parenteral nutrition and short bowel syndrome.

A 900gm infant required right and middle lobectomies. She was extubated five days later. She is now a healthy five year old girl.

A 1380gm infant could not be weaned from the respirator because of pulmonary interstitial emphysema in the left lung. After left upper lobectomy, she was extubated in two days. She recovered well and is now six months of age.

In cases where the interstitial emphysema is mainly localized to one lung or lobe, pulmonary resection can improve function when non-operative measures have failed as demonstrated in our three cases.

SYLVATIC PULMONARY HYDATID DISEASE IN CHILDREN.

Abid H. Khan, M.D.; Pierre-Paul Collin, M.D.; Mohamed Sellami, M.D. Martine Favreau-Ethier, M.D.
Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal.

Eight patients with sylvatic pulmonary hydatid disease underwent thoracotomy and appropriate surgery during the last 15 years at our institution. Sylvatic form of echinococcosis must be considered in the differential diagnosis of mass lesions of the chest in Canadian and native American children when the appropriate environmental conditions are present. Three children were asymptomatic. Five children presented with unproductive cough, one patient had chest pain and dyspnea associated with cough. One patient was treated for tuberculosis for three months and another was treated for bronchitis. Casoni was positive in three of our patients. Hemagglutination was negative in five of the patients. Roentgenological examination including CT scan is the most valuable diagnostic aid. Seven of our patients had single lesion. One patient had single lesion in each lung. Surgery is the treatment of choice for pulmonary echinococcal cysts.

Operative procedure in our opinion is not without risk as we believe that one of our patient expired due to formalin aspiration in both lungs.
PULMONARY SEQUESTRATION. A 15 YEAR EXPERIENCE.

Pierre-Paul Collin, M.D.; Jean G. Desjardins, M.D.; Abid H. Khan, M.D.; Mohamed Al-Haaf, M.D.
Sainte-Justine Hospital, Montreal.

A review of 40 patients over a 15 year period with a diagnosis of pulmonary sequestration was undertaken. The most common presenting complaint was repeated infections of the sequestrated segment. The symptoms started on average at the age of four years. Two of our patients were symptomatic since the neonatal period. On an average each patient was admitted three times to the hospital before undergoing surgery. All our patients had abnormal plain chest x-rays. Most patients had aortography and pulmonary arteriography. Two patients had severe purulent infection needing emergency resection of the sequestrated lobe. All our patients had been followed for an average period of 5 years after diagnosis and treated medically for repeated pulmonary infections. In our experience almost all cases of pulmonary sequestration require surgery in the long term. We believe that once the diagnosis is confirmed an early planned elective surgery is necessary in all patients to avoid morbidity, undue cost expenditure and psychological trauma due to multiple admissions to the hospital. We noted a very high incidence (80%) of our right lower lobe sequestrations had spectrum of related lesions compatible with scimitar syndrome. We therefore submit almost all of our patients to pulmonary arteriography and aortography before planning the appropriate surgery.

THE ANAL SPHINCTER FORCE IN HEALTH AND IN DISEASE.

B. Shandling, F.R.C.S., R.F. Gilmour, M.A.Sc., P.Eng.

The measurement of the strength of the anal sphincters has heretofore involved voluntary co-operation by the patient. In some children one cannot count on the maximum squeeze pressure being generated and in others the child is too young to understand what is required. We have devised an objective method of measuring the anal sphincter force (A.S.F.) and have collected data derived from over 256 children over the course of 24 months. These include patients with Hirschsprung's Disease, constipation, post-operative incontinence, spina bifida and normal children both conscious and anaesthetized. The results are presented and the value of the test and its applications are discussed.
FOCAL ECCASIA OF THE TERMINAL BOWEL ACCOMPANYING LOW ANAL DEFORMITIES. Raymond Cloutier, M.D., FRCS(C), Le Centre Hospitalier de l'Université Laval.

We report 3 cases of children who were operated upon at birth for low anal deformities (incomplete covered anus), and who presented subsequently with severe fecal impaction necessitating repeated hospitalizations, in the absence of stenosis or anterior displacement of the anus, neurologic abnormalities or evidence of aganglionosis.

Radiologic and pathologic findings are presented and discussed. In our view, this represents a congenital anomaly of the terminal bowel, similar to the segmental dilatation of the colon already reported in the literature. Its incidence amounts to about 5% of anal deformities and from our experience, rectosigmoidectomy appears to be the treatment of choice.

EXPERIENCE WITH POSTERIOR SAGITTAL ANORECTOPLASTY

OM TUCKER, M.D., THOMAS J. BAESL, M.D., ROBERT S. BLOSS, M.D.
BAYLOR COLLEGE OF MEDICINE AND TEXAS CHILDREN'S HOSPITAL

FROM 1983 TO 1985 TWENTY-THREE (23) PATIENTS HAD POSTERIOR SAGITTAL ANORECTOPLASTY PERFORMED. 20 PATIENTS HAD THIS PROCEDURE AS PRIMARY TREATMENT FOR CONGENITAL ANORECTAL MALFORMATION, TWO FOR THE TREATMENT OF FECAL INCONTINENCE FOLLOWING A PREVIOUS PULLTHROUGH PROCEDURE, AND ONE FOR FECAL INCONTINENCE FOLLOWING TRAUMA. THERE WERE 18 MALES AND FIVE FEMALES, INCLUDING ONE FEMALE WITH A CLOACA. ALL IMPERFORATE ANUS CASES WERE HIGH EXCEPT FOR ONE FEMALE WHO HAD A RECTOVESTIBULAR FISTULA. SEVEN PATIENTS HAD NO FISTULOUS COMMUNICATION WITH THE GENITOURINARY TRACT. ASSOCIATED ANOMALIES INCLUDED ESOPHAGEAL ATRESIA AND TRACHEOESOPHAGEAL FISTULA (4), GENITOURINARY ANOMALIES (9), Vertebral anomalies (4), CARDIAC ANOMALIES (2), AND OTHER VARIED ANOMALIES (8). 21 PATIENTS HAD THE PROCEDURE DONE EXCLUSIVELY FROM THE SACROPERINEAL APPROACH. TWO MALES REQUIRED LAPAROTOMY BECAUSE OF A HIGH RECTOVESICAL FISTULA. THREE MALES DEVELOPED TEMPORARY URINARY RETENTION IN THE IMMEDIATE POSTOPERATIVE PERIOD. ALL HAD EXTENSIVE DISSECTION AT THE BLADDER NECK AND PROSTATIC AREA. TWO PATIENTS DEVELOPED LATE MUCOSAL PROLAPSE. NO TAPING OF THE RECTUM HAD BEEN DONE IN THESE TWO PATIENTS. FOLLOW-UP RANGES FROM TWO TO 30 MONTHS. EARLY INDICATIONS OF FECAL CONTINENCE ARE QUITE ENCOURAGING AND THE APPEARANCE OF THE ANUS IS REMARKABLY NORMAL. POSTERIOR SAGITTAL ANORECTOPLASTY CAN BE A SAFE AND EFFECTIVE METHOD FOR MANAGEMENT OF ANORECTAL MALFORMATIONS, ESPECIALLY HIGH IMPERFORATE ANUS. PRELIMINARY FOLLOW-UP SUGGESTS BETTER COSMESIS AND FECAL CONTINENCE AS COMPARED WITH OTHER PROCEDURES. COMPLICATIONS CAN BE MINIMIZED BY ATTENTION TO CERTAIN TECHNICAL ASPECTS OF THE PROCEDURE.
REOPERATION BY ANTERIOR PERINEAL APPROACH FOR MISSED PUBORECTALIS

Juan Bass, M.D.; Salam Yazbeck, M.D.

Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal.

Poor postoperative continence in patients operated for high imperforated anus may result from an inadequate bowel pullthrough behind the puborectal muscle.

Between 1979 and 1983 we used the anterior perineal approach for reoperations in five such cases (3 males, 2 females). In all of them preoperative continence was socially unacceptable. Each time it was possible to identify a partially or totally missed puborectal muscle. Although some complications occurred postoperatively, all patients acquired a socially acceptable level of continence with a mean follow-up of 4.4 years. Pre and postoperative rectal manometries are presented. The anterior perineal approach not only provides adequate exposure of the urethra and puborectal muscle, but also has the advantage of operating through and area that had not been previously dissected.

Early Results with the J-Pouch Procedure in Children.

David E. Wesson, M.D., F.R.C.S. (C).

Department of Surgery, The Hospital for Sick Children and the University of Toronto

Eight consecutive children (5 ulcerative colitis, 3 polyposis) were operated upon (mean age 11 years; range 4-18 years) over a two year period. All underwent mucosal proctectomy, reconstruction of the rectum with a J-pouch of ileum and a proximal loop ileostomy as described by Utsumomiy. Complications included 2 cases of neuropathy of the lateral popliteal nerve, 1 partial dehiscence of the ileo-rectal anastomosis, and 1 prolapse of the loop ileostomy. One developed Na and H2O depletion due to a high ileostomy which resolved after it was closed. All 8 underwent closure of the loop ileostomy (average 4 months later; range 2-7 months). Complications included 1 enterocutaneous fistula from the ileostomy site, 1 early bowel obstruction due to kinking of the afferent limb to the pouch which required revision of the pouch and re-creation of the loop ileostomy, 1 late bowel obstruction which required enterolysis and 1 case of "pouchitis".

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Of the seven patients who are presently evaluable, all are continent and have returned to their usual state of health and normal activities. All prefer their present situation to an ileostomy.
A Ten Year Experience with the Pediatric Kock Pouch
Sigmund H. Ein
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In 1981, a five year experience with the pediatric Kock pouch was reported. This series has now increased to 20 patients with an overall experience of 10 years. There were 12 females and eight males ranging in age from 13 to 19 years. These pouches were all elective: 18 were converted from standard ileostomies, six were converted along with proctectomy or Hartmann procedure, and two had a total proctocolectomy along with a Kock pouch. Three of these conversions were for failed Swenson, Soave and Duhamel procedures. Sixteen had ulcerative colitis, three Hirschsprung's Disease (one with colon atresia and imperforate anus with rectovaginal fistula) and one with colonic polyposis ('Gartner's Syndrome'). Nobody had Crohn's Disease. The 14 complications directly related to the Kock pouch were: stoma stricture, prolapsed nipple valve, long out flow tract, fecal fistula, salt loss, slipped nipple valve, chronic small bowel obstruction and pouchitis. The 100% followup shows that 19 patients have been followed for more than one year. They are all well, continent, happy and back to a virtually normal life that includes marriage in three. The Kock pouch should be an elective procedure and must be done only when the colon and rectum have been removed and never in a patient with Crohn's Disease. No children other than responsible teenagers should receive this pouch.

"Experiences With The Use Of The Port-A-Cath® In Childhood"

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Over the last 13 months we have inserted a total of 15 Port-a-Caths® in children between the ages of 11 months and 18 years. The smallest child weighed 9.4 kilograms. Two others weighed between 10 and 12 kilos. The indication in all cases except one was the administration of cancer chemotherapy. The devices have been in use for periods ranging from 3 months to 13½ months (total of 90 patient-months, average of 6 months).

Three patients had the device removed electively at termination of chemotherapy. Four patients died with the device in place and functioning well. Two patients required removal for complications: persistent candida sepsis and eventual occlusion in one and chronic Staph. Epidermidis bacteremia in the other. All others still have functioning catheters. There have been no other significant complications. Parent tolerance and parent acceptance is good. In particular, we are impressed with the fact that ease of insertion and of use as well as durability, do not seem to be limited by patient size, as long as a vessel large enough to accommodate the catheter can be found.

Index words: - "Port-a-Cath®"
Neonatal Pharyngo-Esophageal Perforation Mimicking Esophageal
Atresia - Clues to Diagnosis

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Perforation of the newborn child's esophagus or pharynx can mimic
esophageal atresia clinically.

Fourteen cases of newborn hypopharyngeal or esophageal perforation
are presented. In nine patients, esophageal atresia was the
initial diagnosis entertained; seven of these on the first day
of life. In four others, the diagnosis of a perforated pharynx
or esophagus was evident on plain chest X-ray.

Six patients had esophagrams. Two newborns underwent
thoracotomies for repair of their initially diagnosed esophageal
atresia. Subsequently esophageal perforation was diagnosed intra-
operatively on each and suture repair was undertaken. The twelve
remaining neonates were treated non-operatively. There were four
deaths; all in the non-operative group and three weighing less
1000 grams.

In retrospect, each child presented early clues to the true diagnosis
of pharyngo-esophageal perforation. A history of difficult endo-
tracheal or nasogastric intubation, or bloody nasogastric tubing
is suggestive of perforation. Furthermore, the allowed length of
nasogastric tube placement plus the sometimes subtle chest X-ray
changes should prompt suspicion and esophagography. Non-operative
treatment most often is indicated.

AN ALTERNATIVE TO AN INTERPOSITION PROCEDURE IN OESOPHAGEAL ATRESIA

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THE MANAGEMENT OF OESOPHAGEAL ATRESIA WITH T.E.F. IN PREMATURE
INFANTS WITH A LONG GAP AND A VERY THIN UPPER POUCH IS DIFFICULT.
WE HAVE FOUND THAT THE SUTURE-FISTULA, AS DESCRIBED BY ALAN
SHAPER IN 1974, HAS BEEN AN EXCITING ANSWER TO THIS PROBLEM.
OVER A TWO YEAR PERIOD IN FOUR INFANTS WEIGHING FROM 1200
TO 1700 GRAMS, THIS TECHNIQUE HAS BEEN USED. THE FISTULA WAS
DIVIDED, THE THIN UPPER POUCH MOBILIZED, THE DISTAL OESOPHAGUS
CLOSED AND THE OESOPHAGEAL ENDS APPROXIMATED SNUGLY BY TWO
INTRALUMINAL SUTURES OF 4-0 SILK. THERE IS DISBELIEF IN THE
NURSERY WHEN FORMULA GIVEN THROUGH THE GASTROSTOMY TUBE
REGURGITATES INTO THE MOUTH ABOUT EIGHT DAYS POSTOPERATIVELY.
SUBSEQUENTLY, SOME DILATATIONS HAVE BEEN NEEDED, AND IN ONE,
A GASTRIC WRAP FOR REFUX.

THIS RESULT IS DIFFICULT TO EXPLAIN OTHER THAN FISTULIZATION
OCURRS ALONG THE SUTURE. THE TECHNIQUE SEEMS ESPECIALLY SUITED
TO THE SMALL PREEMIE WITH A THIN UPPER POUCH.

IN ONE 2900 GRAM FEMALE INFANT WITH A LONG GAP, THE SAME TECHNIQUE
WAS EMPLOYED. THE BABY FISTULIZED THROUGH THE OESOPHAGEAL ENDS,
BUT DILATATION WAS NOT SUCCESSFUL. AT SECOND THORACOTOMY AT 26
DAYS, THE ENDS WERE NON TIGHT TOGETHER, SO A RESECTION AND
ANASTOMOSIS WAS PERFORMED EASILY. AT SIX MONTHS, SHE IS WELL
AND HAS REQUIRED NO DILATATIONS.
ESOPHAGEAL FUNCTION FOLLOWING LIVADITIS REPAIR OF LONG GAP ESOPHAGEAL ATRESIA. A. Schneeberger, R.B. Scott, H. Machida, S.Z. Rubin, Departments of Surgery and Pediatrics, University of Calgary and Alberta Children’s Hospital, Calgary, Alberta, Canada.

Livaditis pioneered primary repair of long gap esophageal atresia as a single stage procedure involving circular myotomy of the esophagus. However, esophageal motility and function have not been studied in patients after Livaditis repair, and the effect of the circular myotomy on motor function is unknown. Six infants with long gap esophageal atresia (4.3 ± 1.1 cm gap) were studied after Livaditis repair using a single circular myotomy of the upper pouch. Infants were followed clinically for 11-42 months after repair, and esophageal function was assessed by barium esophagram, manometry, 24 hr esophageal pH monitoring, esophagoscopy and biopsy. Operative complications included 2 minor anastomotic leaks and 2 asymptomatic diverticulae at the myotomy site. All patients had abnormalities on esophagram similiar to those seen with primary repair of short gap atresia, none had balloononing, and gastroesophageal reflux (GER) was documented in 4. Manometry was abnormal in all patients with variable lengths of aperistalsis, but retention of physiologic lower esophageal sphincter relaxation. In 4 patients 24 hr pH monitoring demonstrated a frequency and duration of GER >2 S.D. above average. Of 4 patients with GER and abnormal 24 hr pH studies, 3 had biopsy confirmed esophagitis. In follow-up, 2 patients are asymptomatic, 2 have dysphagia secondary to dysmotility, and 3 have required fundoplication for complications of GER. In conclusion, Livaditis repair allowed early primary treatment in all 6 patients with long gap esophageal atresia, without significant surgical complications related to the myotomy. The esophageal motility disorders, frequency of GER and requirement for subsequent fundoplication, seen in these infants after Livaditis repair of long gap esophageal atresia, are not different than those described with conventional repair of short gap esophageal atresia.

ESOPHAGEAL PERFORATION IN THE NEONATE – AN EMERGING PROBLEM IN THE NEWBORN NURSERY
Irwin H. Krasner, M.D., David Rosenfield, M.D., Mark Hiatt, M.D., Thomas Hagyi, M.D. – UMDNJ-Rutgers Medical School, New Brunswick, NJ.

We report ten cases of esophageal perforation in the neonate, nine occurring in a two year period. Eight babies were less than one kg, were intubated and had oro-gastric tubes passed, and two were full term infants who were not intubated. Four babies presented as esophageal atresia, two as pneumonia, three as pneumothorax, and one as esophageal duplication. In six cases, the endotracheal tube was suspected as causing the perforation, and in four cases an oral feeding tube was suspected. Two preemies died, one after a few hours, and one after 30 days from intraventricular hemorrhages with the perforation healed.

All cases were diagnosed by x-rays. In five cases the esophagram revealed a typical "double esophagus", in three cases a pneumothorax was seen with the feeding tube in the right chest, and in two cases, pneumonia and a right abnormal extrapleural air collection was seen.

Antibiotic treatment was started for suspected sepsis prior to the diagnosis in all cases, and was continued for two weeks. Peripheral IV nutrition was maintained for seven days, and then a nasogastric tube was easily inserted fluoroscopically on the eight day, and tube feedings were continued for an additional week.

No direct operative closure or drainage of the esophageal tear was performed, except in one case who was operated upon for a mistaken diagnosis of esophageal duplication. Two babies had gastrostomies inserted, one for a mistaken diagnosis of pure esophageal atresia and one to reduce leakage into the right pleural space. In three babies a right chest tube was placed for a pneumothorax.

Esophageal perforation in the neonate can be successfully managed non-operatively.
CONGENITAL ENDODERMAL SINUS OF THE PENIS

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Department of Surgery and Pathology The Dr. Charles A. Janeway Child Health Centre, and Memorial University of Newfoundland.

Congenitally occurring endodermal sinus tumors are very rare and frequently occur in association with teratomatous growths. The most common location for these tumors in infancy is the gonads. Tumors of the penis are rare in any age group. As far as we know, this has never been reported in the penis.

A 17 month baby boy was noted to have a pimple like lesion at the corona of the glans penis. This was stationary and ignored for a year. At this point, the lump began increasing in size. A further delay of 6 months elapsed before a definitive diagnosis was made.

This case emphasizes that any nodule in this area in the neonate is ignored with jeopardy.

Torsion of an Undescended Intraabdominal Benign Testicular Teratoma

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Hospital for Sick Children, Toronto, Ontario

During the past 14 years, the author has done 450 orchidopexies, but in this group, only five testes were not found at exploration of the groin and intraabdominal area just within the internal ring. The present case report, while unheard of at our hospital, may raise the question of laparotomy for the undescended testicle not found at groin exploration. A four year old well boy was seen because of an asymptomatic left undescended testicle since birth; the testis was not palpable and the right side was normal. Several weeks before the scheduled orchidopexy, he developed left lower quadrant and left hip area mild pain, with some bladder symptoms and left leg limping. Examination was nonspecific, but it was obvious something in the pelvis was bothering him. Routine blood work and urinalysis were negative. Hip and abdominal x-rays were normal, as was barium enema. Ultrasound showed a possible mass (? stool) in the pelvic area along with some free fluid. An IVP was normal. He was treated symptomatically and improved in a few days. Before planned discharge, a CAT scan was done to rule out a retroperitoneal tumor; it showed a 4cm x 4cm calcified retroperitoneal pelvic tumor on the left side. At laparotomy, an infarcted 4 cm mass was found in the pelvis just above the internal ring. It was a torsion of an undescended intraabdominal benign testicular teratoma. The tumor was removed and his recovery was uneventful.
THE USE OF CT SCAN TO DETERMINE TYPE OF IMPERFORATED ANUS

Juan Bass, M.D.; Sami Youssef, M.D.; Denis Filiatrault, M.D.
Ste-Justine Hospital, Montreal.

A male newborn patient with imperforate anus and abdominal distention had an invertogram at 24 hours of life suggesting a high type. Clinical suspicion of being a low type led us to perform a CT scan of the perineal area which was compatible with a low type. The patient had a perineal anoplasty without difficulty.

We believe that CT scan is an accurate test to determine the level of the rectal pouch and could avoid unnecessary colostomies in certain patients.

TRANSRECTAL CATHETER DRAINAGE OF PELVIC ABSCESS UNDER ULTRASOUND GUIDANCE - REPORT OF FOUR CASES.

Irwin H. Krasna, M.D., John Nosher, M.D., Gary Needel, M.D.
UMDNJ-Rutgers Medical School, New Brunswick, NJ.

A simple method of drainage of pelvic abscesses requiring neither an operative procedure nor general anesthesia is presented. It is applicable to those abscesses that can be felt rectally, and is performed by a radiologist or a surgeon in the X-ray suite, utilizing ultrasound.

With a full bladder and a lightly sedated patient, the abscess and rectum are scanned with real-time. The operator’s hand is gloved and a one-step Trochar catheter is laid on the index finger, the catheter tip at the finger tip. The stylet of the Trochar is withdrawn approximately one centimeter to assure safe passage into the rectum.

The index finger is well visualized by ultrasound as it passes through the rectum to the wall of the abscess. When the finger is in optimal contact with the abscess wall, the stylet is inserted through the tip of the catheter and the Trochar and catheter are passed into the center of the abscess cavity as demonstrated by ultrasound. The stylet is removed and the catheter assumes a pig tail configuration. The finger is removed from the rectum. The catheter is then taped to the inner leg.

We have successfully drained four pelvic abscesses in four patients, three children and one adult. Three patients were post appendectomy for appendiceal abscess, and one child had a pelvic abscess following foreign body perforation of the rectum. The procedure was definitive, did not have to be repeated, and curative.
INTRAOPERATIVE BALLOON OCCLUSION OF CONGENITAL PULMONARY ARTERIOVENOUS FISTULA
N.E. Wiseman

Children's Hospital of Winnipeg, University of Manitoba

A term male infant weighing 3840 grams presented with cyanosis, tachypnea, intercostal indrawing, and clinical evidence of congestive heart failure at 9 hours of age. A chest x-ray revealed cardiomegaly and increased density in the region of the right lower lobe. Both the pre and postductal PO₂ were 30 mm of mercury with the infant breathing 100% oxygen. Echocardiography demonstrated a structurally normal heart. Cardiac catheterization revealed a large pulmonary arterial venous malformation involving the right lower lobe. A balloon catheter placed in the right lower pulmonary artery was demonstrated to occlude the arterial venous fistula and resulted in an increase in PO₂ from 40 mm of mercury to over 200 mm of mercury. With the balloon in situ and inflated the infant was taken to surgery and underwent right lower lobectomy with the fistula remaining occluded. Recovery was uneventful. The use of the pulmonary artery balloon resulted in: 1) preoperative control of congestive heart failure 2) a normal intraoperative oxygen saturation 3) pulmonary resection in a safe bloodless field.

EXTRASPINAL EPHEDYOMA

CHOU, Shirley and SOUCY, Pierre.

The Children's Hospital of Eastern Ontario, OTTAWA

ONTARIO

THE PATIENT IS A 16 YEAR OLD GIRL WHO HAD AN ASYMPTOMATIC MIDLINE COCCYGEAL MASS FOR TWO YEARS. THERE WAS NO EXTERNAL OPENING AND NO OTHER ABNORMAL FINDINGS EXCEPT FOR OCCULT SPINA BIFIDA.

AT OPERATION, A NON-ENCAPSULATED LESION IMMEDIATELY BELOW THE DERMIS WAS FOUND. IT WAS COMPLETELY FREE OF THE COCCYX, AND RESEMBLED NEURAL TISSUE. ON MICROSCOPY, IT PROVED TO BE A MYXOPAPILLARY EPEDYOMA. A WIDER RESECTION WAS UNDERTAKEN AND NO RESIDUAL TUMOUR WAS FOUND.

EXTRASPINAL EPHEDYOMA IS A NEOPLASM OF NEUROECTODERMAL ORIGIN. IT IS A SLOW GROWING, LOW GRADE MALIGNANCY, BUT CAN METASTASIZE. IT IS ASSOCIATED WITH SPINA BIFIDA, LIPOMA, LIPOMENINGOCELE, AND EPIDERMOID CYST. TREATMENT IS SURGICAL, RESERVING RADIOTHERAPY FOR RESIDUAL IMPERABLE TUMOUR.
"EXTERNAL PELVIC FIXATION IN THE TREATMENT OF BLADDER
EXTROPHY"
J.L. Leahey, M.D., F.R.C.S.(C), D.C.S. Brown, M.D.,
F.R.C.S.(C), J.C. Hyndman, M.D., F.R.C.S.(C), Mitchell
Hathway, M.D.

DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

Posterior osteotomy of the Pelvis combined with
anterior Pelvic Fixation with a combination of Threaded
Pins, K-wires and Bone Cement for stabilization has
been employed at our institution in five cases of
Bladder Extrophy. With this technique, this infrequent
but difficult surgical condition has been significantly
easier to manage after surgical and urologic repairs
from the nursing point of view and from relief of
patient discomfort.

Further, our initial experience with this technique
suggests that the high postoperative dehiscence rate
when compared with other techniques may be reduced. This
inexpensive and versatile system can benefit newborn
and older age children and we feel offers a worthwhile
innovation.

Colonic atresia associated with segmental dilatation of the ileum: A case
report

Luong T. Nguyen, Dan Doody

Department of Surgery, The Montreal Children's Hospital and McGill
University

Colonic atresia is an uncommon congenital malformation. Colonic
atresia or stenosis in different series have comprised from 1.8% to 5 -15% of
all gastrointestinal atresia and stenosis. In some instances, associated
anomalies have been reported such as:
- intestinal malrotation
- malformation of the extremities
- Hirschsprung's disease
- major abdominal wall defects
but colonic atresia associated with segmental dilatation of the terminal
ileum, to the best of our knowledge, has never been reported.

A 2200g baby girl was admitted for abdominal distension and failure
to pass meconium. Investigation showed an atresia of the upper sigmoid
colon. Laparotomy was performed. An atresia Type I was found and a
terminal colostomy, with mucus fistula, was done. Exploration throughout
the entire intestinal tract showed a segmental dilatation of the ileum about
30 cm from the ileo-coecal valve (3 times the normal calibre of the other
segment of the small intestine). This segment was left intact. Post-
operatively, the baby remained obstructed and nothing was drained from
the colostomy. Reintervention was performed 3 weeks later with resection
of the dilated ileum and reanastomosis of the colon. Post-operative period
was uneventful and the baby was discharged 3 weeks later. She is now 41
months old, a good looking little lady.

We reported this case because of its rarity.
PAEDIATRIC IMPLICATIONS OF MULTIPLE ENDOCRINE NEOPLASIA
D.P. Girvan & R.L. Holliday
Division of Paediatric Surgery
Children's Hospital of Western Ontario.
London, Ontario.

The association of endocrine tumors from several sites have been known for over fifty years but the familial aspects of these relationships have only been appreciated since 1954. The term multiple familial endocrine adenomatosis (MEA) was subsequently changed to multiple endocrine neoplasia (MEN). Type I (MEN I) describes the association of tumors of the pituitary gland, parathyroid gland and pancreatic islets. Type II (MEN II) has two forms with MEA IIa referring to familial medullary thyroid cancer, pheochromocytoma and hyperthyroidism.

This report describes two children, age 8 and 11 years, who are cousins with MEA IIa. A strong family history prompted investigation of these children. Pentagastrin stimulation resulted in elevated serum calcitonin levels and subsequent surgery. Unsuspected medullary thyroid cancer was found in each child.

The nature of this disease entity, its familial association, the screening methods to be used and the surgical therapy to be undertaken will be discussed.

Proper screening of high risk individuals should prevent this potentially lethal condition from becoming a major problem.

ABDOMINOSCROTAL HYDROCELE. A CAUSE OF ABDOMINAL MASS IN CHILDREN. A CASE REPORT AND REVIEW OF THE LITERATURE.
Abid H. Khan, M.D.; Salam Yazbeck, M.D.

Sainte-Justine Hospital, University of Montreal, Department of Surgery, Montreal.

A four months old white male was admitted to the hospital with a mass in the left lower quadrant. The patient had a history of bilateral hydroceles since birth. The mass was discovered on a routine examination in an asymptomatic child. It was well localised, cystic non tender on palpation and it had a smooth surface and well localised margins. The transillumination was positive. The mass communicated with the left hydrocele on clinical examination under general anesthesia. Abdominal ultrasounds, I.V.P., and barium enema were not helpful in making the diagnosis. At laparotomy a cystic lesion 7 cm in diameter was found, it was under tension and was communicating with the left sided hydrocele. Histopathology confirmed the diagnosis of abdominoscrotal hydrocele.

In the review of the literature we found only 6 cases of abdominoscrotal hydrocele and our patient is the youngest.
Le fond d'éducation permet d'inviter chaque année d'éminents chirurgiens pédiatiques étrangers pour enseigner dans différents centres médicaux du Canada. Il permet également à notre Association de déléguer un conférencier en chirurgie pédiatrique lors de la réunion de la Société Canadienne de Pédriatrie. Il rend possible une participation élaborée de notre Association au programme scientifique du Congrès Annual du College Royal des Médecins et Chirurgiens du Canada. Il nous aide enfin à défryer le coût de la réunion annuelle de l'Association Canadienne de Chirurgie Infantile.

Des particuliers, des associations appartenant ou non au domaine médical, ainsi que différentes agences philanthropiques s'intéressant au progrès de la chirurgie infantile ont bien voulu contribuer à ce fond.

L'objectif de l'Association est d'accroître le capital à un niveau tel que l'intérêt annuel soit suffisant pour défryer le coût de ce programme.

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