

دکتر ولی اله محرابی، دکتر لیلی مهاجرزاده، دکتر علیرضا میرشمیرانی، دکتر احمد خالق نژاد طبری، دکتر آزاده فلاحی، دکتر شبنم ابتحی،
دکتر مرجان کفائی

Ileocecal patch –low rectal anastomosis in total colectomy :New idea for the prevention of fecal incontinence

¹Mehrabi V, ²Mohajerzadeh L, ²Mirshemirani AR, ²Khaleghnejad Tabari A, ¹Falahi A, ¹Abtahi SH, ²Kafaei M

¹Department of Pediatric Surgery, Pediatric Medical Center, Tehran University of Medical Sciences,

²Pediatric Surgery Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Background: Total colectomy is used in children with total colonic aganglionosis, Ulcerative colitis (UC) and familial adenomatous polyposis (FAP). The purpose of this study was to maintain ileocecal valve and rectal-sparing surgery for the prevention of fecal incontinence in these children.

Methods: From 1990 to 2011, 14 children with diagnosis of UC, FAP and Hirschsprung's disease were operated. Total colectomy was done with the preservation of patch of cecum with ileocecal valve and half of the rectum with ileo-ceco-rectal anastomosis. Distal ileum designed as S shape pouch and ileocecal valve were preserved. In Hirschsprung's disease, posterior rectal myotomy was established. The data were collected and analyzed.

Results: The mean age of the patients was 54 months (ranged from 2 months to 18 years). Ten patients were male. Among 14 patients, Hirschsprung's disease, ulcerative colitis and FAP were seen in 10, 3, and one case, respectively. They were followed up annually. Clinical and endoscopic examinations were performed to evaluate the function of ileo-ceco-rectal anastomosis. They followed from 2 to 24 years. At first year, the patients experienced four to six bowel movements during the day and one at night. This frequency decreased over time. The main postoperative complications included recurrent enterocolitis (n=2), perianal fistula (n=2). Only 2 patients were suffering from some degree of fecal soiling.

Conclusion: The results show that the Ileocecal patch- low rectal anastomosis in total colectomy leads to low complications and prevent fecal frequency and incontinence. It also increases absorptive function of ileum in children.

Laparoscopic Colon surgery for benign disease:

A comparison to open surgery

Bazrafshan A, Abdollahi A, Etezadpour A

Dr.Sheikh's Children Hospital, Mashhad University of Medical Sciences, Mashhad, Iran

Background and Objectives: Today we are witnessed a growing number of minimally invasive surgical techniques for different disease. Laparoscopic colon surgery as a minimally invasive surgery is currently growing in treatment of malignancies after proving his place in the treatment of benign disease. We compare in this study results of laparoscopic colorectal surgery with open surgery.

Methods: 36 laparoscopic colon resection performed for benign disease were compared to 36 open colon resections with respect to operating times, length of hospital stay, estimated blood loss, days until first postoperative bowel function, and an equivalent number of complication. Duration of surgery was higher in the laparoscopic group.

Conclusion: The use of laparoscopic colon surgery for benign disease not only affords the patient the advantage of the laparoscopic approach, but also allows the surgeon to gain experience for laparoscopic colon surgeon in malignant disease.

دکتر فریبا جهانگیری، دکتر مریم قوامی عادل، دکتر سید جواد نصیری، دکتر پیروز فرهود، دکتر صلاح الدین دلشاد

Ten years study of children with perianal abcess & fistula- in-ano

In Aliasghar Children's Hospital (1382-1392)

Jahangiri F, Ghavami Adel M, Nasiri S.J, Farhood P, Delshad S

Aliasghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Background: The purpose of this study was to evaluate the incidence, management, and outcomes of these patients.

Method: It is a retrospective descriptive study on patients 0-14 years who were admitted in Aliasghar hospital between '1382-1392' with perianal abscess and fistula.

Results: There were 50 patients with 45(90%) male and 5(10%)female. Mean age of patients was 28mo. (1-168) .13 patients had an underlying illness. 22 patients was admitted with perianal abscess for surgical drainage and 28 with fistula that 23 patients(82%) had previous history of perianal abscess with spontaneous or surgical drainage. Fistulotomy was performed in 19 patients and fistulectomy in 9.

Conclusion: Male is more prone for perianal abscess and fistula. Recent reports have advocated conservative management of these patients but in this center surgical management.

The effects of the Saffron extract on the incidence of adhesions after abdominal surgery in rats

Mohamadipour M, Taneh H

Department of Pediatric Surgery, Taleghani University Hospital, Gorgan, Iran

Background: Peritoneal adhesion is one of the most common side effects of the abdominal and pelvic surgeries. These adhesions can cause significant pain, bowel obstruction and impairment of fertility. It seems that Saffron extract due to its anti-inflammatory properties can decrease the incidence of intra-abdominal adhesions. The purpose of this study is the assessment of Saffron extract's effect on the incidence of adhesions after abdominal surgery in rats

Methods: This was a case-control study which was done on three groups of rats. There were fifteen rats in each group. The amount of Talc, Normal saline and Saffron extract was 2.5 cc, 6cc and 250mg/Kg in those three groups respectively. Each of the animals was under anesthesia with ketamine. Midline surgical incision was performed on their abdomens and sutures were done after treatment. After three weeks the rats' stomachs were opened again and Grade of adhesions was assessed based on Evans model. Data was analyzed using statistical software spss-16 and Fisher's exact test.

Results: In Talc group, all mice showed adhesions grades two and three. In the Normal saline group, ten rats showed grade 2 adhesion. In Saffron extract group, five rats had no adhesions, Five rats showed grade 1 adhesions and four mice had grade 2 adhesion, Grade 3 adhesions was observed only in one of the rats of this group. Seven rats in talc group, three in the Normal saline and one rat in Saffron extract group were expired before three weeks. Data analysis showed that the difference between adhesions grade in Saffron extract group compared to talc group was statistically significant ($P=0.014$) and mortality differences between these two groups were significant ($P=0.001$). There was no significant difference on the incidence of adhesion among the studied groups ($P>0.05$).

Conclusion: Applying the Saffron extract can be effective in order to avoid the sticky bond formation in rat Laparotomy surgery

Evaluation of diagnostic and therapeutic role of modified posterior anorectal myectomy in patients with refractory chronic constipation

Nahvi H

Department of Pediatric Surgery, Children Medical Center Hospital,

Tehran University of Medical Sciences, Tehran, Iran

Background and aim: Causes of refractory chronic constipation may be different aim of this study was to evaluation of diagnostic and therapeutic role of modified posterior anorectal myectomy in these patients method and patients in this study we reviewed 15 patients who had undergone modified posterior anorectal myectomy by one surgeon for refractory chronic constipation referred to pediatric surgery clinic between 2001 and 2013 patients. Patients with other medical, endocrine, psychologic causes and with transitional zone on the barium enema or obstruction pattern were excluded and patients with persistent symptoms 3-4 months or more after medical therapy and dilation of rectum included to the study.

all patients have under gone complete bowel prepping preop and prophylaxis antibiotic therapy and admitted 2-3 day in Hospital modified. As a classic technique: posterior myotomy defined resection a classic posterior longitudinal muco muscular parts (5-10 mm diameter *30-60mm length) of anorectal and by different transversally repair of the defect.

In this study pathologic reports, response of patients to treatment and outcomes of patients were investigated

Results: of total 15 patients 12 was male, age range 6 month to 12 years in pathology reports 4 patients have rare (hypo) ganglion in distal part and positive in proximal, In 3 patients ganglion cell was negative on distal and proximal was positive. 8 patients have ganglion in both ends and only in one patient there was not any ganglion cell in distal or proximal ends of specimen

we follow the patients for 6 to 20 months and only one patient has bleeding that has controlled, one had fecal incontinency that improved after 1 month, all patients except one patients improved constipation, who managed medically and there was no any stricture in this study

Conclusion: not only majority of patients with Refractory constipation may be treated by modified posterior anorectal myotomy but also there were some advantage such as availability proximal of resection is easier and absence of stricture in this technique.

دکتر فرید اسکندری، دکتر هوشنگ پورنگ، دکتر منصور ملائیان، دکتر مانا فرهنگ، دکتر اسماعیل دارابی، دکتر میترا آذرشاهین، دکتر ابراهیم اسپهبدی

Inflammatory pseudotumor of sigmoid colon - A case report

Eskandari F, Pourang H, Mollaeian M, Farhangi M, Darabi E, Azarshahin M, Espahbodi E

Department of Pediatric Surgery, Bahrami Children's Hospital,

Tehran University of Medical Sciences, Tehran, Iran

Inflammatory Pseudo Tumor (IPT) Inflammatory Myofibroblastic Tumor (IMT) or plasma cell granulomas are synonymous for an inflammatory solid tumor that contains spindle cells, myofibroblasts, plasma cells, and histocytes. Inflammatory pseudotumor can occur, typically in children and young adults, in many different organ systems. Common sites of presentation include lung, mesentery, liver, and spleen; intestinal presentations are rare, and the etiology remains obscure. The tumor often clinically behaves like a cancer but without histological evidence of malignancy. Our case was a 5 years-old boy with an inflammatory pseudotumor presenting as an obstructing apple core lesion, mimicking a rectal carcinoma with intermittent sever rectal bleeding. A (6×5×5cm.) circumferential mass was find at colorectal junction which cause complete obstruction. Complete resection with primary anastomosis was performed because of sever rectal bleeding and G.I.obstruction.

Histopathologic examination showed a nonmalignant mass consisting of fibroblastic and collagenous fibrous tissue with some hyalinized areas and small dystrophic calcifications. There were varying amounts

Of inflammatory cells composed of plasma cells and lymphocytes with sparceneutrophilic infiltration in some areas, so the histopathologic diagnosis of inflammatory pseudotumor was made. The postoperative course was uneventful, and the boy was free of symptoms 2 weeks after surgery with normal laboratory findings.

Transanal Endorectal Resection and Pull-through Technique (TERPT) for long segment Hirschsprung's Disease

Ashjaei B, Ahmadi J

Department of pediatric surgery, Tehran University of Medical Science, Tehran, Iran

Background: Transanal Endorectal Resection and Pull-through Technique (TERPT) for Hirschsprung's disease was presented in 1998. It offers the advantages of avoiding laparotomy, laparoscopy, scars, abdominal contamination, and adhesions. This method is used for classic or rectosigmoid HD with or without laparoscopic mobilization of colon.

Methods: Charts of 9 patients (2008–2013) with proven long segment aganglionosis were retrospectively analyzed. One of these patients had total colon and distal ileal aganglionosis. All of these patients were undergone transanal-endorectal resection and pull-through technique.

Results: From December 2008 to December 2013, 9 patients (5 males) were treated. All presented from neonatal period to eight months. One patient, with transition zone within proximal 15 cm of terminal ileum, had transanal-endorectal pull-through performed. All procedures were performed without laparoscopy without intraoperative complication (operative time, from 3 to 6 hours 45 minutes). Blood transfusion was needed in 4 patients. Retrorectal abscess was happened in one patient whose imaging study was done with barium instead of water soluble contrast. Obstructive problems were not occurred in any patient. We didn't have any intraoperative and postoperative mortality.

Conclusion: Primary endorectal pull-through without laparoscopy is feasible in TCA with limited small bowel involvement and has the advantage of a single-stage operation, avoiding a stoma and its related complications.

Tailgut cyst as a painful sacrococcygeal mass

Roshanzamir F, Khaleghnejad Tabari A, Khaleghnejad Tabari N, Khaleghnejad Tabari R,

Mohajerzadeh L, Rouzrokh M, Roshanzamir F

Pediatric Surgery Research Center, Shahid Beheshti University of Medical Sciences,

Tehran, Iran

Introduction: The tailgut or postanal gut is the most caudal part of hindgut, distal to the future anus. It normally involutes by the 8th week of embryonic development. If a tailgut remnant persists, it may give rise to tailgut cyst in retrorectal space and caused symptoms of mass effect or pain. The lesions were usually multicystic and lined by a variety of epithelial cell types. Complete excision of the multilocular and multicystic mass prevents recurrent draining sinuses and eliminates the possibility of malignant change. Tailgut cyst occurred predominantly in women usually in middle age, but it can be discovered at any age.

Microscopically, it is characterized by the presence of a cyst lined with multiple, varying types of epithelium; columnar, mucin secreting epithelium predominates, while other areas of squamous and transitional epithelium often coexist. Sacrococcygeal mass presentation of cyst is rare.

Case Report: A 17 year-old boy was seen for evaluation of a slowly enlarging soft mass at sacrococcygeal region. On examination a subcutaneous cystic lesion, with diameter of 6 cm at the largest diameter, was noted in sacrococcygeal region. The patient complained of tenderness on mass with fullness sensation in rectum during sitting position. CT and MRI confirmed a dumbbell shape cystic lesion from retrorectal and presacral region to sacrococcygeal area and crossing the tip of coccyx. Complete transsacral surgical excision of cyst performed. Histopathologic examination revealed a cyst lined by squamous and transitional epithelia and met the criteria of tailgut cyst. There was no evidence of malignancy within the cyst. There was no evidence of recurrence of the tumor or complication with infection 2 year after surgery.

Conclusion: Tailgut cysts are rare developmental lesions in adolescence. Index of suspicion should be high for diagnosis with history and physical exam, and CT/MRI. Complete surgical excision is definitive

Painless rectal bleeding and anemia in children due to colorectal hemangiomas and vascular malformations

Seyedi J, Khaleghnejad Tabari A, Mirshemirani AR, Leili Mohajerzadeh L, Rouzrokh M

Pediatric Surgery Research Center, Mofid Children's Hospital

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Purpose: Hemangiomas and vascular malformations of the GI tract are rare entities. The small bowel is the most frequent site. Colonic and anorectal hemangiomas and vascular malformations are even rarer and account only 38% of this problem, of which 50% are located in the rectum.

Case Report: Case 1: Female neonate with classic triad of Klippel-Trenaunay-Weber Syndrome: Left limb hypertrophy, Cutaneous hemangiomas of left limb, Perianal area and Left pelvic and rectal hemangiomatous mass. Female neonate with classic triad of Klippel-Trenaunay-Weber Syndrome: Left limb hypertrophy, Cutaneous hemangiomas of left limb. Perianal area and Left pelvic and rectal hemangiomatous mass.

Case 2 & 3: Two brothers with confirmed diagnosis of Hereditary Hemorrhagic Telangiectasia (Osler-Weber-Rendu syndrome) of left colon. Each presented with repeated attacks of fresh rectal bleeding and chronic iron deficiency anemia at ages 3 and 4 years. RBC scan and colonoscopy identified the site of bleeding. Investigation for other components of this syndrome was negative. Both patients underwent segmental colectomy of affected parts of colon and histology confirmed the vascular malformations.

Case 4: Four-year-old female with repeated fresh rectal bleeding and anemia from age 1 year.

Several upper and lower GI endoscopies were not conclusive. She has been under medical treatment for three years with ferrous sulfate and PPI. Her technetium-99m scan was suspected to Meckel's diverticulum. She underwent laparotomy that confirmed terminal ileum hemangiomas. Case 5: 10 months old girl with several episodes of severe rectal bleeding resulted to severe anemia, hospital admission and blood transfusion. All investigations were negative. Diagnostic laparotomy confirmed segmental hemangiomas of upper jejunum the resected and end to end anastomosis was done, patient had uneventful post-operative course.

Conclusions: Hemangiomas and vascular malformations of the distal GI tract should be considered as one of the causes of painless rectal bleeding and chronic anemia in childhood or early adulthood. Complete surgical resection is the best management for segmental GI involvement of these lesions.

Perisacral fistula and a history of sacro-coccegealteratoma: A case report

Ghavami Adel M, Nasiri J

Aliasghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Background: Sacro-coccegealteratoma usually removed through a chevron incision and during the operation careful and delicate dissection is obligatory in order not to injure other organs. Fistula can be a debilitating complication of rectal injury.

Case-Here we explain a four year old girl with sacro-coccegealteratoma that was operated 2 years ago through a postro-sagital incision. She was referred for two orifices in upper sacral region that had a tract through the rectum (high fistula). After evaluation for tumor recurrence she was treated successfully with rectal advancement and protective colostomy.

Conclusion: Whenever we saw any other surgical complication in a patient with a previous history of malignancy we must evaluate him thoroughly for recurrence. Rectal advancement and resection can be a safe and effective method for high sacral fistula. In fistula management fecal diversion is essential.

A rare case of neonatal ileo-cecal valve stenosis

Amouee A, Berenji R

Ali-ebneabitaleb Hospital, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

Intestinal stenosis involving the ileocecal region is a very rare intestinal malformation. We report the case of a 38 day old female neonate presented with poor feeding, bilious vomiting, abdominal distention since 10 days ago with a provisional diagnosis of perforated NEC, in whom laparotomy revealed that the ileocecal stenosis with small bowel dilatation and small colon. We performed an ileocolic anastomosis between the terminal ileum and the ascending small colon without valve resection with appendectomy to R/O of total colonic H.D. When last seen, 6 months after the operation, the baby was developing normally.

A 10- year study of colorectal polyps in children aged under 14

At Alzahra teaching Hospital' in 2001-2011

Rafiee MH

Isfahan University of Medical Sciences, Isfahan, Iran

Introduction: Intestinal polyp, especially juvenile polyp is an important gastrointestinal tract disease in children. It is more frequent in patients with a positive family history. Since malignancy is possible in this disease, diagnosis based on clinical and paraclinical signs and consequently treatment seem indispensable.

Materials and methods: Based on a descriptive, cross sectional study some 200 children aged under 14 who were suffering from colorectal polyps and visiting Alzahra teaching hospital during 2001-2011 and subjected to medical care were included in the study.

The information available on file included clinical signs on visit, diagnosis; pathology reports, treatment and positive family history were collected and analyzed using SPSS 11 whereupon indices for central tendency and distribution were reported.

Results: Analysis of the data. From 200 case studies reveal that pathologically 85% suffered from juvenile polyps, 2% from Peutzjegher, 1% from tubular adenoma, 1% from villous adenoma.

The mean and standard deviation of the patients' ages were 5.6 ± 3.33 on diagnosis.

55% of the patients were male and 45% were female. 5.7% of the cases had a positive family history. 85% suffered from rectal bleeding, 31% from rectal prolapsus, 17% from constipation, 4% from diarrhea, 4% from abdominal pain and 1% from G.I.T obstructive signs.

53% were diagnosed by rectosigmoidoscopy, 18% by colonoscopy, 2% by Ba enema and 27% by physical and rectal examination. Pathological examinations revealed no malignancy, familial adenomatous polyp or inflammatory mass. 91% of the patients were treated by endoscopy and polypectomy and 6% by cauterization and 3% (6 patients) by laparotomy.

Discussion: in this study juvenile polyp was the most common type of polyp in GIT. Further, endoscopic methods were used in diagnosis and treatment which were consistent with other similar studies.

However the clinical signs of our patients were more severe at the outset than in other studies, which can be due to lack of parent's knowledge and attention or due to lack of attention on the part of medical doctors. Since polyps can lead to certain type of malignancies at older ages, their timely diagnosis and treatment as well as screening of patients with a positive family history can play an effective role in the prevention of polyp related disease.

دکتر مریم قوامی عادل، دکتر جواد نصیری، دکتر الهام طلاچیان، دکتر پیروز فرهود، دکتر فریبا جهانگیری، دکتر صلاح الدین دلشاد

Colorectal polyps in children: 10 years survey in a pediatric center

Ghavami Adel M, Nasiri SJ, Talachian E, Farhood P, Jahangiri F, Delshad S

Aliasghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Background: Colorectal polyps are common in children and they are also a common cause of gastrointestinal bleeding in children. Most of children with colorectal polyp have a single lesion not associated with malignancy, located in the rectosigmoid colon; therefore, sigmoidoscopy with polypectomy is therapeutic.

Material & Method: It is a retrospective study on medical data sheets of patients with rectal polyps who were treated endoscopically or surgically in AliasgharChildren's Hospital, Tehran during January 2003 to January 2013. The purpose of this study is to evaluate sex and age prevalence in addition to different presentations and pathologies of rectal polyps in a pediatric center. Microsoft office Excel2007 was used for data analysis.

Results :There were 34 patients with 13 (38%) female and 21 (62%) male. Mean age of patients was 5.2 years (1-12 years) and the mean distance of the polyps from the anal verge was 5.6 cm. rectal bleeding was seen in 82% and prolapse of the polyp in 53% of patients, although 38% of patients had both presentations together. Histopathology included juvenile polyp (88%), fibro epithelial (6%), retention cyst and nodular lymphoid each in 1 patient. Most of the polyps removed surgically (65%) and 85% of the polyps were pedunculated. The family history of rectal polyp was positive just in 6% of patients. And only one patient had multiple polyps in proximal colon.

Conclusion: As the other studies most of the rectal polyps are single with a very low risk of positive family history. The predominant pathology was juvenile polyp. Although multiple polyps were seen just in one patient thorough endoscopic examination of the proximal part is recommended.

Does childhood constipation need surgical intervention?

Ashrafi Aminah M

Isfahan University of Medical sciences, Isfahan, Iran

Childhood constipation is an extremely common problems, accounting for 3-5% of general pediatric outpatient visits and 20- 25% of pediatric Gastroenterologist outpatient consultation. Estimates of the worldwide prevalence of constipation vary widely from 0/3-28% with younger children

Being affected most often, while the vast majority of cases (90-95%) are functional, certain diagnosis is indicative of an organic etiology.

This article will describe definition of constipation, etiology; organic cause

Of constipation: anatomical abnormalities: Analectopic, Imperforate anus with prineal fistula, anal or colonic stricture, neural cause: spinal cord lesion, Neuropathic lesions of the gastrointestinal tract such as Hirschsprung's disease

Intestinal neuronal dysplasia, systemic disorders: such as, connective tissue disorders, metabolic causes and celiac disease, drugs and others.

Recommendation for taking history, physical examination, differential diagnosis, and recommendation which one not to do for diagnosis, and which one to do for diagnosis, and which one needed surgical treatment?

دکتر سعید اصلان آبادی، دکتر داوود بادبرین، دکتر داریوش شیخ زاده

Ten years results of one staged surgery of Hirschsprung's Disease

AslanAbadi S, Badebarin D, Sheikhzadeh D

Department of pediatric surgery, Tabriz Children's Hospital, Tabriz, Iran

Transanal One Staged Pull-Through (TOSEPT) has been recently used as the minimally invasive method for treatment of Hirschsprung's disease. Compared to previous multistage methods, in this method there is often no need for abdominal wall incision and colostomy is hardly needed. For about ten years this method has been widely used as the technique of choice in patients with Hirschsprung's disease particularly infants in Children's Hospital of Tabriz. With this method parents and patients are obviously more satisfied and complications are lower compared to previous classic methods. In this study we surveyed all the patients who have been managed with this method and compared the rate of complications with other techniques of Hirschsprung's surgery. It seems that the incidence of complications such as enterocolitis, anal stricture, chronic constipation and incompetence is considerably lower in patients who have been undergone TOSEPT procedure.

Atresia of the colon associated with Hirschsprung's Disease - A case report

¹Diaz D, ²Eftekhari K

¹Department of Surgery Zanjan University of Medical Sciences, Zanjan, Iran

²Department of Pediatrics, Zanjan University of Medical Sciences, Zanjan, Iran

Introduction: Atresia of the colon is a rare anomaly with a reported incidence of between 1:20,000 and 1:66,000 live births^{1,2}. Only 20 patients were previously been communicated in association with Hirschsprung's disease

Case report: A 2-day-old full-term female baby with a birth weight of 3200 g was born to a 28-year-old mother. She was admitted with severe abdominal distention, bilious vomiting and failure to pass meconium. A distended abdomen accompanied by hypoactive bowel sounds was also observed. X-ray examination of the chest and abdomen revealed increased intestinal gas, mainly in the colon.

Type IIIa atresia of the colon at the level of the splenic flexure was found at laparotomy. A temporary double-barrel colostomy was completed, the postoperative course was uneventful and the patient was discharged at the 10th postoperative day. The biopsy of the proximal colon showed the presence of ganglion cells. At the age of 3 months, a rectal biopsy was performed because of the aspect of the distal colon and aganglionosis was confirmed. After that, the patient was lost from follow-up.

Discussion: The incidence of simultaneous colonic atresia and Hirschsprung's disease is estimated to be 1 in 10 million live births³. Wilson et al claims that 80 per cent of infants with colonic atresia have associated gastrointestinal anomalies, particularly rotation and fixation anomalies⁴ but aganglionosis and intestinal neuronal dysplasia should be taken into account as well⁵. When both diseases are combined, the etiology is still uncertain and several etiologies have been suggested. The association should be suspected in all cases of colonic atresia and rectal biopsies are advocated at the primary operation in patients with atresia of the colon.^{2,5,6,7,8,9, 10,11}

دکتر محمد علی رئیس السادات، دکتر فریبا تبریزیان

Innovative Hybrid Technique in treatment of Hirschsprung's Disease

Raeisolsadat MA, Tabrizian F

Azad University, Mashhad, Iran

Background: Hirschsprung's disease is a well-known disease that has multiple surgical approaches based on size and site of disease, every day a new technique is introduced for treatment, but for total Hirschsprung's there are few techniques. The most famous of them is Kimura technique.

Methods: We want to introduce an innovative hybrid technique from combination of Kimura and Soave techniques that has done in one stage.

Results: Although this has done in two cases, we have good results.

Conclusion: we introduce to make more experiences.

Evaluation of early outcome of Duhamel operation with stapler in children with Hirschsprung's disease

Hosseinpour M

Department of Pediatric Surgery, Imam Hossein's Hospital, Esfahan, Iran

Background: Although linear cutter stapler can be used on tissue in Duhamel procedure, but this instrument is not used routinely in all pediatric surgery centers. In this survey, the outcome of Duhamel operation with stapler in children with Hirschsprung's disease operated in 2013 in Imam Hossein's hospital of Isfahan in Iran was evaluated.

Methods: In this survey, all children with Hirschsprung's disease referred to our center in 2013 were evaluated. All patients had double barrel colostomy at the time of diagnosis. Patients were hospitalized two days before operation and bowel preparation was performed by PEG and antibiotics. Procedure was Duhamel technique with 75 mm linear cutter stapler. Post operatively oral regimen was started on day seven. In January 2014, parents were recalled and standardized defecation assessment questionnaire were filled by specialized nurse trained for this purpose.

Results: In 2013, seven children were evaluated. The mean of post operative time was 4 months. Six patients (85%) were female. The mean age of patients was 15 months. Three patients (43%) had no meconium defecation in first 24 hours of birth. Severe constipation and abdominal distension were noted in six patients (85%). There was no adhesion band formation clinical finding in patients. Defecation was 1-2 times per day in 85% of patients. Fecal consistency was normal in all patients. None of above 1 year old patients had incontinency. Defecation sensation was present in these 3 patients.

Conclusion: With linear cutter stapler in Duhamel operation, we can have acceptable outcome in first year of operation in children with Hirschsprung's disease

دکتر حمیدرضا فروتن، دکتر محمدرضا وحداد، دکتر علی فروتن، دکتر محسن سلطان نجفی، دکتر عباس بنانی، دکتر گریگور سرنیانو، دکتر رالف تروبس

Totally Transanal LESS Pull-Through Colectomy: A novel approach for avoiding abdominal wall incision in children with long-segment intestinal aganglionosis

²Foroutan H, ¹Vahdad M, ²Foroutan A, ²Najafi M, ²Banani A, ¹Grigore Cernaianu, ¹Ralf-Bodo Trobs

¹Marien Hospital, Bochum University, Bochum, Germany

²Mother and Child Hospital, Shiraz University of Medical Sciences, Shiraz, Iran

Introduction: Minimally invasive surgery in children with long-segment intestinal aganglionosis aims to reduce the number of abdominal wall incisions. Conventional laparoscopic and Laparo-Endoscopic Single-Site (LESS) surgeries fulfill this goal. In children, Natural Orifice Transluminal Endoscopic Surgery (NOTES); American Society for Gastrointestinal Endoscopy [Oak Brook, IL] and Society for American Gastrointestinal and Endoscopic Surgeons [Los Angeles, CA] has been limited because of fear of access site complications.

We present a novel technique of totally Transanal LESS Pull-through Colectomy (TLPC), avoiding abdominal wall incision, which combines LESS technology and the NOTES approach.

Subjects and Methods: Two boys and one girl (2.5 months, 6 months, and 5 years of age, respectively) with sigmoid and transverse colon aganglionosis underwent surgery. The TLPC procedure consisted of an endorectal technique with submucosal dissection starting 1 cm orally from the dentate line to above the peritoneal reflection, where the rectal muscle was divided circumferentially. After ligation of the rectal mucosa, the proximal bowel was replaced into the abdominal cavity, and a TriPort[®] (Olympus Surgical Technologies Europe, Hamburg, Germany) was introduced transanally. Mesenterial resection of the aganglionic bowel was accomplished via transanal LESS until the normo-ganglionic colon segment was reached and pulled down to the site of anastomosis. After removal of the port, a conventional pull-through procedure was performed.

Results: All children displayed normal bowel movements and were complication-free during the follow-up period of up to 7 months.

Conclusions: TLPC combines the minimally invasive LESS surgery with the scarless concept of NOTES and allows resection of long-segment aganglionosis without abdominal incision. TLPC is a safe, effective, and feasible surgical procedure in children with long-segment intestinal aganglionosis

New method of transanal pull through operation in patients with Hirschsprung's Disease

Vahidhosseini M

Department of Pediatric Surgery, Hormozgan University of Medical Sciences,
Bandar Abbas Children's Hospital, Bandar Abbas, Iran

Backgrounds: Hirschsprung's disease is an enteric nervous system dysfunction. Although, several types of pull through operations exist for this condition, each has its own pros and cons. The latest method of transanal soave pull through operation is usually performed much more frequently. However, this method is associated with soilage in many patients because the myotomy of the soave cuff or excess retraction destroys the symmetry of high pressure zone of anal sphincter and also made the operation easier with less associated complications.

Methods: During the period of month between January 2011 and February 2012 we performed a new method of transanal soave pull through after obtaining parental consent and ethical approval on 50 cases of Hirschsprung's disease. Mucosectomy was started 1.5 cm above the dentate line as in classic soave. Once frozen biopsy showed ganglion cells the mucosal dissection was stopped and a four quadrant myotomy on soave cuff done. The mucosal cuff was resected and full thickness anastomosis done above dentate line over a rectal tube. All patients started feeding on the second day of operation.

Results: The mean age was 4.5 years (range 1-3 years). Internal sphincter pressure ranged from 29.6 ± 6.7 mmHg before intervention to 37.5 ± 6.5 mmHg after intervention and 48.4 ± 8.3 mmHg 6-month after study ($p < 0.0001$). Defecation pattern score changed from 7.4 ± 1.9 to 6.1 ± 1.4 , 6 month after study ($p = 0.002$). Early obstruction occurred in 20 of them. But it was relieved by rectal dilatation for 2-month. Three cases developed anal stenosis that underwent reoperation. There was no anastomotic leak or peritonitis.

Conclusion: Pull through operation remains the gold standard for treating Hirschsprung's disease. It was considered as a major operation with major complications such as anastomotic leakage and incontinence. However, the present method, by avoiding opening the peritoneal cavity and saving the configuration of sphincter complex, appears to have fewer complications. The problem of post soave cuff obstruction was obviated by avoiding the wrapping muscle cuff around full thickness of colon. We a larger scale trial of this method and hope that it may lessen the number and degree of complications usually associated with transanal-pullthrough operations.

دکتر لیلی مهاجرزاده، دکتر احمد خالق نژاد طبری، دکتر محسن روزرخ، دکتر ناصر صادقیان، دکتر علیرضا میرشمیرانی، دکتر فتح اله روشن ضمیر، دکتر جواد غروبی، دکتر ساره پورحسن، دکتر پرند غفاری

Results of surgical repair of Hirschsprung's Disease in Mofid children's Hospital

Mohajerzadeh L, KhaleghnejadTabari A, Rouzrokh M, Sadeghian N, Mirshemirani AL, Roshanzamir F, Ghorroobi J, Pourhasan S, Ghaffari P

Pediatric Surgery Research Center, Mofid Children's Hospital,

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Purpose: Considerable controversy exists regarding the optimal surgical technique for the treatment of Hirschsprung's Disease, We collected results of pull-through in last 7 years ago, to evaluate differences in surgical preferences among pediatric surgeons in our center and compare the consequences. We want to compare our results with another centers for identify our pitfalls.

Material & Method: From 1385 until 1392 we had 193 patients with Hirschsprung's Disease that operated primary in our center. Referral patients with complication removed from our study. We provided Hirschsprung's Disease sheet and collected all information from the files. Then we called and requested them for visit.

Results: We had 193 patients with mean age 20 months(10 days-168month) for pullthrough procedure.75% were male.50% were identified in infancy period. 9% had associated anomalies that most common was Down syndrome (5.1%).

length of involvement was, Ultrashort 11(5.7%),Rectosigmoid 139(72%),Descending colon8(4.1%), transverse colon17(8.8%) ,ascending colon 1(0.5%) ,Total colonic 8(4.1%) ,Ileum2(1%),Jejunum1(0.5%).Type of repair was Duhamel 6 (3.1%), Soave 32 (16.6%), Swenson 58(30.6%),Transanal 83(43%) ,State 5(2.6%), Myectomy Transanal 2(1%). 85(44.1%) patients underwent single-staged repair. 71(36.8%) patients in 2 stages and 25 patients (13 %) in 3 stages .Fallow up duration was between 1-8 years. Complications as early or late were seen in 75(39%) of patients that included: Entocolitis in 20(10%), pelvic Abscess formation in 2(1%) cases , Fecal incontinence in 8(4%) , anastomic Stricture 24(12%), Constipation 13(6.5%),fecal peritonitis 3(1.5%) , Urinary retention 3(1.5%), obstruction 4(2%) ,colostomy prolapsus 4(2%),late entrocuteaneous fistula followed abscess formation 3(1.5 %) ,colovesical fistula 1(0.5%),Massive perianal abscess formation and perianal fistula in 2(0.5%) and anastomosis in aganglionic segment in 1(0.5%). Frozen section biopsy was performed in 137 patients (71%), that frozen and permanent reports were different in 13 cases (6.7%).3(1.5%) patients expired .For 2 cases with entocolitis colostomy established. And for 2 cases with fecal soiling Malone operation was done. Rectal stricture management include: anal dilatation program in 9 patients (4.7%), redo pull through 3(1.6%), y-v Anoplasty 3(1.6%), anal dilatation program under general anestesiain were done for others. 2 cases with perianal abscess formation led to colostomy insersion.

Conclusion: The only way to improve results is to gain more experience, assess the complications, methods and learn from others.

Comparing and treatment of defecation disorders after different surgeries for Hirschsprung's Disease in Tabriz Children's Hospital

Badebarin D, Aslanabadi S, Jamshidi M, Alizade D

Pediatric Surgery Department, Children's Hospital, Faculty of Medicine,

Tabriz University of Medical Sciences, Tabriz, Iran

Introduction: Hirschsprung's disease (HD) is a developmental disorder of the enteric nervous system characterized by the absence of ganglion cells in the distal of colon. After corrective surgery, the majority of children with HD develop protracted defecation disorders such as soiling, constipation, fecal incontinence, and/or enterocolitis. The aim of this investigation was to determine the incidence, diagnoses, therapies, and 6-month clinical outcomes in these children.

Methods & Materials: In this cross-sectional study performed at pediatric surgery ward in Tabriz children hospital, incidence, diagnosis and treatment of defecation disorders after surgery for HD were studied. First, defecation pattern was determined in 230 cases of HD that were treated with surgery in past ten years (2001- 2011). Then 30 patients (> 1 year old) with severe disorders were recruited. Diagnostic and therapeutic procedures were performed. Treatment outcome was evaluated after six months.

Results: Defecation pattern was normal in 65% patients. In 21% of the cases, defecation disorders were mild and negligible, with no need of treatment. In 13%, this pattern was impaired and annoying for the patient. Seventy seven percent were male and 23% were female. Soiling, constipation, incontinency and enterocolitis were the postoperative disorders. The incidence of defecation disorders was low in transanal one staged pull-through surgery technique. Twelve patients were treated with reoperation, 10 cases recovered with drug administration and in 24 cases parental education was done. In a 6-month follow-up, clinical outcome was excellent in 5 (16.7%), good in 15 (50%), fair in 8 (26.7%), and poor in 2 (6.6%) patients.

Conclusion: The majority of children with HD and protracted defecation disorders after corrective surgery have a favorable long-term clinical outcome when treated with correct methods and following a systemic algorithm.

دکتر لیلی مهاجرزاده، دکتر احمد خالق نژاد طبری، دکتر محسن روزرخ، دکتر ناصر صادقیان، دکتر علیرضا میرشمیرانی، دکتر فتح اله روشن ضمیر، دکتر جواد غروبی، دکتر ساره پورحسن، دکتر پرند غفاری

Unusual late complications after pull through for Hirschsprung's Disease

Mohajerzadeh L, Khaleghnejad Tabari A, Rouzrokh M, Mirshemirani AR, Sadeghian N, Roshanzamir F, Ghoroubi J, Pourhassan S, Ghafari P

Pediatric Surgery Research Center, Shaheed Beheshti University of Medical Sciences, Tehran, Iran

Introduction: Common complications after pull-through procedure include enterocolitis, anastomotic stricture, constipation, retention of aganglionic colon and fecal incontinence. Fistula from the rectum to the skin, urethra, or vagina is seen very rare. We confronted with late fistula formation in these children that are too problematic.

Cases presentation: from 2005 until 2012 we had 193 patients with Hirschsprung's disease that underwent different types of procedures for treatment. But 5 patients presented with late fistula formation that are very challenging.

Case 1: a 4 years old male with massive late entrocuteaneous fistula in gluteal area. He has total colonic aganglionic Hirschsprung's that underwent State procedure in 10 months old. In 2.5 years old followed mild anastomotic stricture laid bouginage program and it resolved. He had one attack of enterocolitis in 3 years old that respond to conservative management. He referred with massive gluteal abscess, and after drainage it converted to entrocuteaneous fistula. So we performed diverting colostomy for him. Case 2: 15 years old male with delayed gluteal abscess and followed entrocuteaneous fistula with history of Soave Pull through in 5 years ago followed ultra short Hirschsprung's disease. He also underwent diverting colostomy. He had no anastomotic stricture and complains fecal soiling. Case 3: 6.5 years old male with entrocuteaneous fistula in supra pubic area. He had history of Swenson procedure in 4 years ago. He presented with fistula 2 years ago and repaired but followed colostomy closure it recurred again. Now he has colostomy. Case 4: a 3 years old male with colovesical fistula. He had history of trans anal pull through in 23 days old. Because anastomotic stricture, he was under bouginage program. But in 19 months old he presented with colovesical fistula. After vesicostomy and colostomy insertion, fistula repaired but it recurred one year later and underwent Posterior sagittal trans-sphincteric approach for reoperation. Case 5 was similar to these cases with recalcitrant sacral and perian -entrocuteaneous fistula that died despite several operations.

Conclusion: Although Surgical treatment of Hirschsprung's disease has an overall good outcome. And most patients live in acceptable condition for long term but sometimes pediatric surgeons confront with catastrophic complication in these children that need to long team working for resolving it.

دکتر احمد خالق نژاد طبری، دکتر علیرضا میر شمیرانی، دکتر حمیدرضا فروتن، دکتر عباس بنانی، دکتر لیلی مهاجرزاده.

دکتر محسن روزرخ

Total colectomy and Ileorectal anastomosts with anorectal myotomy:

A new procedure for treatment of total colonic aganglionosis and gastrointestinal dysmotility

Khaleghnejad Tabari A, Mirshemirani AR, Foroutan H, Banani A, Mohajerzadeh L, Rouzrokh M,
Pediatric Surgery Research Center, Shahad Beheshti University of Medical Sciences

Department of Pediatric Surgery, Mother and Child Hospital, Shiraz University of Medical Sciences

Introductions and Aims: We have performed State pull-through as ileoproctostomy with long posterior myotomy in total colonic aganglionosis and sever dysmotility disorders.

Methods: 13 cases, 10 total colonic aganglionosis, Intestinal Neuronal Dysplasia (IND) and 2 Chronic Intestinal Pseudo-obstruction syndrome (CIP) from 1992 to 2012 underwent total colectomy and resection of part of involved small intestine and ileorctal anastomosis in one layer with 4/0 Vicryl with long posterior rectal myotomy. All patients had barium enema and rectal biopsy.

Leveling ileostomy was done in 12 cases of which one had distal jejunostomy. 2 of 13 children, proximal diverting loop ileostomy had been established. 3 cases, 2 weeks after initial operation, myotomy from anus, performed.

Results: 13 female patients at the age of 6 months to years. Rectal biopsy of 10 Patients reported no ganglion cell of which one had extended aganglionosis to distal jejunum, one had IND and two had ganglionic bowel with clinical presentation of CIP.

Follow up time was 6 months to 10 years. There were no significant complication in this group of patients except episodes of diarrhea and severe dehydration that need hospitalization and hydration. All have acceptable bowel function following operation (2-6 times a day). Now, 5 children of 13 patients are above the age of toilet training have voluntary bowel movement with little or no medication (Leopromid).

Conclusion: State pull-through is recommended in all cases of total colonic aganglionosis and severe dysmotility problems of colon. This technique is less difficult to perform, and avoid the complications and disadvantages of removal of the rectum and has satisfactory results.

Perineal mesh rectopexy with sterile Talc in children with rectal prolapse

¹Nazem M, ²Hosseinpour M

¹Department of Pediatric Surgery, Al-Zahra Hospital, Isfahan, Iran

²Department of Pediatric Surgery, Imam Hussein Hospital, Isfahan, Iran

Background: With such a wide variety of treatment options available for rectal prolapse and a variable success rate, the optimal treatment for this condition in children is still debated. In this study, we evaluated a technique of perineal mesh rectopexy with a sterile talc-soaked mesh and compared the success rates and complications of this method with those of abdominal rectopexy.

Methods and materials: To examine the effect of therapeutic interventions, a randomized control trial (children were randomized into the case group or the control group) was carried out. In the control group, children were operated on by abdominal posterior mesh rectopexy. In the case group, a 30-cm sterile asbestos-free talc-soaked mesh was placed in the presacral space in a spiral fashion with the end exiting from the perineal incision. From 5th day after surgery onward, the mesh was gradually extracted (10 cm per day) and completely removed by the 7th postoperative day. On postoperative assessment, the duration of hospitalization, the postoperative complications and the success rates after surgery were compared. Patients were followed up for one year.

Results: In this study we evaluated 120 children. Mean age of the patients was 5.1 ± 0.081 years in the case group and 4.91 ± 0.59 years in the control group ($p = NS$). 34 patients in the case group were male vs. 41 patients in the control group. Results indicated that there was no statistically significant difference in postoperative complications between groups. The infection rate was 1.6 % in the case group and 6.6 % in the control group ($p = NS$). There was a higher resolution of constipation in the perinealrectopexy group (68.4 % in the control group and 96.8 % in the case group; $p = 0.002$). The duration of hospitalization was 6.34 ± 0.28 days in the case group and 6.68 ± 0.31 days in the control group ($p = NS$).

Conclusion: Our findings suggest that perineal mesh rectopexy with sterile talc can be an alternative approach to abdominal surgery and offers an acceptable outcome with a low rate of complications

Role of bulking agents in improving continence in post-operative patients with Hirschsprung's Disease

vahidhosseini M

Department of pediatric surgery, Hormozgan University of Medical Sciences,

Bandar Abbas Children's Hospital, Bandar Abbas, Iran

Background: The bulking agents have provided an effective means in patients with Internal Sphincter (IS) incompetence in adults. The damages to IS in pull-through operation and those who had hypermotile proximal bowel segments had increased the need for rising the IS pressure.

Materials and methods: From January 2008 to February 2012, 35 children with fecal incontinence after pull-through were enrolled and investigated with endoanal sonography and anorectal manometry. The bulking agent was injected into the sub-mucosal anal plane of IS. The assessments were undertaken to clinically assess functional score and anorectal manometry for 6-12 months.

Data was analyzed with IBMSPSS ver21 with repeated measure ANOVA and Friedman test was used for soil edge score changes during study.

Results: Manometry finding before and 6-month after intervention was 21.8 ± 4.2 and 25.2 ± 4.7 mmHg, respectively. High pressure zone area changes from 1.98 ± 0.63 to 2.8 ± 0.75 cm ($P < 0.0001$). Before intervention, all of patient had history from soil age to complete incontinence. However, after intervention and 6-12 month follow-up near sixty percent of patient were continent without history of significant soil age. However, there was a significant improvement in the overall continence grading scale scores post bulking from baseline to 6-12 months but no change in the mean squeeze pressures at any time interval.

Conclusion: Bulking of internal anal sphincter defects provides an improvement in faecal continence and also makes an improvement in function.

Enteric nervous system dysfunction in children with chronic constipation

Vahid Hosseini M

Department of Pediatric Surgery, Hormozgan University of Medical Sciences,

Bandar Abbas Children's Hospital, Bandar Abbas, Iran

Background: Many aspects of enteric nervous system were still unknown and patients considered idiopathic constipation. Developments in techniques of histopathology are going to disclose the basis of the many idiopathic dysmotility of gut. Abnormalities in the interstitial cells of Cajal (ICC) and intestinal smooth muscle and inter neurons have also been postulated [1-7]. Our aim to evaluate the children with chronic constipation who were candidates for rectal biopsy for enteric nervous system dysfunction and modulation of these dysfunction with chemical suitable agents.

Methods: Between January 2010 to February 2012, 40 children 28 male 12 female with including criteria for rectal biopsy underwent full rectal biopsy 1.5 CM above dentate line and each patients had identification of ganglion cells [2, 8] and Calretinin ,C-kit, NSE for (ganglion cells, ICC, nerve trunk) ,respectively [3]. [fig1]. Those with aganglionosis underwent pull through operation, 2- patients with ganglion but abnormality in their immunohistochemistry were received botulinum toxin (dysport ,500unit ,uk), nitroglycerin paste (tolidaru ,iran) for perianal application each night, domperidone (.5mg/kg/d) tablet (tolidaru,10mg,iran). [8-10] and as nerve growth factor ,helps maturation of cajal cell and promotility agent respectively. They were followed by constipation score [1, 2] and anorectal manometry and their complications for 2 years. [11]

Results: In this study, 9 aganglionic patients with mean age of 3.6 ± 1.7 years compared with 31 hypoganglionic patients with mean age of 3.2 ± 1.2 years. Pull-through operation was done for all patients in anglionic group. But in hypoganglionic group Pull-through operation were done in six (19.4%) patients. postop manometry significantly was better in both groups (58.2 ± 15.3 vs. 14.3 ± 3.5) ($p < 0.001$), but manometric change wasn't significant between two groups (14.3 ± 3.5 vs. 14.4 ± 2.6) ($p < 0.1$). [table 1]

Conclusion: Our results in this study show that both parallel groups have similar pre and post treatment. Values of internal sphincter and constipation score despite, significant improvement after treatment in two groups, We recommend every chronically child should be biopsied for evaluation of whole enteric nervous system dysfunction and treated accordingly.

Surgical Treatment of Rectal Prolapse during 8 Years in Mofid Children's Hospital

Sadeghian N, Mirshemirani AR, Khaleghnejad Tabari A, Mohajerzadeh L, Pourhassan S,
Khaleghnejad Tabari N

Pediatric Surgery Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Introduction: Rectal prolapse refers to the extrusion of some or all of the rectal mucosa through the external anal sphincter, usually between infancy and 4 years of age, with a high incidence in the first year of life. It is considered as a sign of an underlying condition-clinical conditions causing increased intra-abdominal pressure, pelvic floor weakness, poor root innervations as seen in Hirschsprung's disease-and not a distinct entity. Also many different methods of surgery exist for treating this condition. We reviewed our experience with treatment and outcome of rectal prolapse in a tertiary center.

Material and Method: All patients with rectal prolapse who were managed at Mofid Children's Hospital between 1384 and 1392 were included. Clinical information was obtained from their hospital records. Main study variables were age, sex, type of prolapse, and type of surgery performed.

Results: From the 111 patients we included, there were 82 boys (73.9%) and 29 girls (26.1%) with a mean age of 3.5yrs +/- 2.3 SD at the time of diagnosis and a mean age of 4.3yrs+/-3SD at surgery. The most frequent type of rectal prolapse was mucosal (82.4%) whereas the frequency of procidentia was 17.6%. Mass extrusion from anus alone was the most frequent symptom (39.2%) but mass extrusion along with rectorrhagia and pain was seen in 17.5% and 11.3% of cases respectively. Chronic constipation (42.9%) and Iatrogenic prolapse following pull-through operations (24/7%) were the most frequent predisposing factors. Conservative treatment mainly consisting of constipation therapy was carried out in 22.2% of our patients. The most common surgical procedures used in our center were Lockhart mummery (28.7%), excision of redundant mucosa (20.4%). Other methods were also used according to the surgeon preference (sclerotherapy 8.3%, Ekehorn rectosacropexy 4.6%, rectopexy with resection of prolapsed rectum through abdomen 2.8%, Thiersch 1.9%, rectopexy with resection of prolapsed rectum through anus 1.9% and others with less prevalences). Eighty nine percent of our patients showed no post-surgical complications. Among those who encountered complications 4.8% had fever, 1.2% anal abscess, 2.4 % rectorrhagia and 2.4 % fecal incontinency. Forty one patients (31.7%) had PSARP alone as a past surgical history. In our study we had 8 cases with recurrent prolapse after surgery (mean 1.3+/-0.7SD). Duration of hospitalization was 1 to 24 days (mean day 3.88+/-3.2SD).

Conclusion: A variety of options for management of rectal prolapse in children exist. Lockhart mummery seems to be safe and a relatively successful option in children.

دکتر لیلی مهاجرزاده، دکتر احمد خالق نژاد طبری، دکتر علیرضا میرشمیرانی، دکتر ناصر صادقیان، دکتر محسن روزرخ، دکتر جواد غروبی،
دکتر پرند غفاری

Ulcerative colitis in infancy, our surgical results

Mohajerzadeh L, khaleghnejad Tabari A, Mirshemirani AR, Sadeghian N, Rouzrokh M,
Ghoroubi J, Gafari P

Pediatric Surgery Research Center, Mofid Children's Hospital,

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Background/Purpose: Ulcerative colitis (UC) is a chronic, idiopathic, destructive disorder of colon. The incidence of UC peaks in the age group of 15 to 25, and only 1% are infantile. Despite initial medical treatment, in refractory cases, colectomy is needed. There are few studies regard surgical results in infancy with UC.

Methods: In this retrospective study we reviewed infants with ulcerative colitis that consulted with us for surgery between 2009 and 2012. We measured age at onset, family history of inflammatory bowel disease, symptoms of onset, colonoscopic findings, duration of Medical treatment, Indication of surgery, Type of operation, surgical complications and Management of them, and rate of mortality.

Results: 4 patients (3 boys, 1 girl) were identified. The mean age of onset of the disease was 35 (range 3-60) days. The mean age of patients at the time of surgical consult was 7 months. The disease began in 3 patients with watery diarrhea. One case (12 month old) had positive family history of his sister with similar presentation that expired in 3 month. He had severe FTT with no response to medical treatment as indication for surgery and underwent total proctocolectomy, ileoanal anastomosis and loop ileostomy but it failed and 3 days after first operation we performed end ileostomy. 2 cases had colon perforation followed colonoscopy and one of them (4 month girl) expired before laparotomy and the other (12 month boy) underwent colostomy in septic shock. The last case was 3 days neonate that underwent ileostomy, in initial surgery with suspicion to total colonic agangliosis and then underwent subtotal colectomy at 2 month old. At 1.5 year old he referred to us with toxic megacolon in remnant colon and underwent colostomy, and 3 month later underwent final surgery.

Conclusions: If a child presents with recurrent bloody or watery diarrhea even in infancy, UC should be considered as a differential diagnosis. The pattern of the disease in infancy appears more rigorous. Evidence-based management of UC presenting in infancy is incomplete but early surgical attempt can reduce catastrophic results.

Successful Surgical management of refractory constipation in children, Taleghani Hospital of Golestan Medical University 1389-1392

Taneh H, Kouchaki GH

Talaghani Hospital, Golestan University of Medical Sciences, Gorgan, Iran

Abstract: Chronic childhood constipation is a debilitating disease that is best managed by using a multidisciplinary approach. Primary care of these patients usually is managed by pediatricians and pediatric gastroenterologists and typically consists of diet modification, cathartic agents, enemas, biofeedback training, and psychotherapy. However, as many as 40% to 50% of such patients fail to respond to medical treatment, and surgical intervention has played an increasing role over the decade in the management of functional constipation. In the past, pediatric surgeons were primarily limited to treatment of the complications associated with constipation of congenital anorectal anomalies. Recently, this limited role has expanded, and earlier surgical intervention including transanal rectal biopsy, posterior internal sphincter myomectomy, and establishing access for ante grade enemas is undertaken for both evaluation and treatment of unremitting, chronic constipation.

Method: Eight children, ages 3 to 7 years, with a history of unremitting constipation were referred for evaluation after not responding to medical management. All patients had megacolon and dilated sigmoid and soiling. All patients treated by surgical technique. Mean follow up was 6 months.

Result: Constipation resolved within 6 months in all patients, 2 cases used 2 months cathartic agents. 2 cases used 12 months cathartic agents. 2 cases had defecation 2 times daily, 5 cases had defecation daily and another day. 1 case had 2 times weekly. Soiling in all cases was resolved.

Conclusion: Refractory constipation with megarectum may be amenable to surgical intervention in selected patients. Our limited experience suggests that surgical technique is an effective treatment option that improves the quality of life in these patients.

دکتر احمد خالق نژاد طبیری، دکتر نسیمه خالق نژاد طبیری، دکتر لیلی مهاجرزاده، دکتر محسن روزرخ، دکتر علیرضا میرشمیرانی، دکتر فرزانه معتمد، دکتر نقی دارا

Stage surgical management of ulcerative in children and young adult

Khaleghnejad Tabari A¹, Khaleghnejad Tabari N¹, Mohajerzadeh L¹, Rouzrokh M¹,
Mirshemirani AR¹, Motamed², Dara N¹

¹Pediatric Surgery Research Center, Shahid Beheshti University of Medical Sciences

²Mehr General Hospital, Tehran, Iran

Purpose: Ulcerative Colitis (UC) in children and young adult is frequently severe and medical treatment-refractory. There is an assumption that patients treated with 3-stage procedures with delayed ileoanal anastomosis for acute phase and active ulcerative colitis is undergoing a safer surgical approach and thus spared the complications associated with a 2-stage procedure. **Methods:** Retrospective analysis of 15 patients who underwent 2 and 3-stage ileal pouch-anal anastomosis (IPAA) surgery for active ulcerative colitis due to failure of medical management over a 14 year period (2000 to 2014). The mean follow-up was 4 years (range, 2 month to 14 years).

Results: Fifteen patients were evaluated in this study. Mean age was 10 years (4 months to 20 years). Mean time of medical therapy before surgery was 3.8 years. In 14 operated patients the indications of surgery were severe anemia, rectal bleeding, abdominal pain and very bad general condition irresponsive to medical therapy and in 1 case colon perforation during medical therapy and colonoscopy. In 7 cases the surgical operation was two stages; Total proctocolectomy+ Endorectal ileoanal anastomosis+ loop ileostomy of which 4 had j pouch ileoanal and 3 straight ileoanal followed by closure of ileostomy after a period of 1 month in 6 cases and after 2 years in one case. In 7 cases operation was three stages: 1- Total colectomy+ Hartman+ End Ileostomy 2-Total proctectomy, J pouch Ileo-anal anastomosis with stapler, loop Ileostomy 3- Closure of Ileostomy. 2 cases after first stage are waiting for the rest stages. Post-operative complications were as follows: in 2 stages 4 patients had complication of which 3 early septic complications (wound infection, pelvic abscess, bowel perforation and peritonitis), 3 late complication (delayed wound healing, entero-cutaneous fistula, perianal fistula and incontinency). In 3 stages, 3 cases had early complications wound infection, pelvic abscess and DVT.

Conclusion: 1- Chronic UC, long-term steroid therapy, Malnourish, Suppress immune system and Urgent surgery are high risk of complications of primary surgery even with protective ileostomy. 2- Staged operation provides an optimal situation with less complication in acute phase of UC patients.

What's the most appropriate method of enterostomy in children?

Saeeda M¹, Khaleghnejad Tabari A²

¹Department of Pediatric Surgery, Milad General Hospital, Social Security Organization, Tehran Iran

²Pediatric Surgery Research Center, Shahid Beheshti University of Medical Sciences, Tehran Iran

Background: Enterostomy, as the primary treatment for anorectal malformations (ARM) and Hirschsprung's disease (HD), is a delicate operation that can affect the quality of life of the patients and even the parents. In older children and the teens, the self-esteem and body image may be somewhat disturbed especially in cases with ugly or "low quality" enterostomies, which lead to significant problems and unsuitable consequences in the course of stoma care and treatment success. Herein we report our clinical outcomes of "separate double-barreled enterostomies with tapering of distal stoma as mucous fistula".

Methods: During a period of 22 years, 200 cases of ARM and HD underwent primary operation (enterostomy), via a curved left lower quadrant incision. We performed a modification of the divided double-barreled enterostomy; separating the proximal stoma located at the uppermost portion of incision and the distal one after being meticulously tapered as a minute mucous-fistula at the level of skin in the medial corner of the incision. The bowel seromuscular coat fixed only to the peritoneum (silk) and subcutaneous tissue (vicryl).

Results: Stenosis of the stoma occurred in 2% of cases, wound dehiscence in 1% and stomal dysfunction in 2%. None of our patients had peri-stomal hernia or stomal retraction and prolapse. Since there was only one matured prominent stoma, it was fully acceptable and comfortable to the parents and patients.

Conclusion: Although the complications of enterostomies have been reported in many series to be as high as 50%, we had a low rate of complications. Our patients just had only one prominent (proximal) stoma whose care was undoubtedly simple and easy. Also the distal mucous-fistula was so minute and ignorable that there was no need for any dressing or coverage, encouraging parents and older patients to be more motivated and satisfied in the treatment course.

Management of severe dermatitis caused by ileal-peristomal leakage using Mushroom-type (de Pezzer) Catheter in Infants

Banani A, Banani J,

Department of Pediatric Surgery, Shiraz University of Medical Sciences, Shiraz, Iran

Background: Peristomal leakage leading to skin damage is a fairly common complication of ileostomies in infants. Although traditional conservative measures including skin barriers, ointments, and agents to reduce bowel movements are initially helpful, uncontrolled leakage requires additional measures.

Methods: A relatively simple procedure [insertion of a mushroom-type (de Pezzer) catheter into the ileostomy], is introduced for the management of severe peristomal dermatitis.

Catheter Insertion Technique: To be explained in the Congress

Case Series: Eleven 1–4-month-old infants (7 males, 4 females) with ileostomy who had severe dermatitis around the stoma unresponsive to conservative management underwent this procedure; eight had total aganglionic colon (TAC); two had meconium ileus (cystic fibrosis); and one had meconium peritonitis due to bowel perforation proximal to ileal atresia. Photographic documentation and monthly body weight were recorded before and after tube procedure.

Results: Intensity of peristomal dermatitis improved significantly in all patients after 2–3 days. In 8 patients, there was minimal (if any) dermatitis 5–7 days after tube insertion. Six patients who had poor weight gain (mean 345 g/month), developed acceptable weight gain (mean 648 g/month) ($P < 0.03$). The tube in 7 patients with TAC was maintained for 2–4 months till the time of definitive procedure, while in 4 patients it was kept for 3–7 days as a step for pre-operative build-up. None of the patients developed any complications.

The procedure requires the presence of a pediatric or trained surgeon, and care must be taken to prevent iatrogenic damage.

Conclusion: An appropriate size mushroom-type (de Pezzer) catheter inside the ileostomy is a practical mode for temporary control of ileal-peristomal leakage causing severe peristomal dermatitis in infants particularly in those not responding to medical therapy.

Recently published in: *Ostomy Wound Management* 2013; 59 (12): 26–31

Study the role of nursing supports rendered to children with colostomy hospitalized in Qods Pediatrics Hospital in 2012

Mashhadi R, Mohajeri S, Ehsan E

Qods Children's Hospital, Qazvin, Iran

Background: Colostomy is a mouth from the abdominal colon that is created by surgery purpose of the colostomy operation is to allow the passage of stool feces; in order to create colostomy, the surgeon removes a part of colon from abdominal wall and this newly opened mouth on abdomen is called the called colostomy. Colostomy may be created in any region of the large intestine. Therefore, nursing support for children with colostomy is very important. Exploit such children is important. The present study was conducted to determine the status and the importance of care giving and emotional supports to establish self-confidence in the mothers of such children.

Methods: Pediatric Intensive Care Unit

This study is of a descriptive type and a comprehensive one consisting of all mothers with children having colostomy surgery hospitalized in Pediatric Intensive Care Unit and in Pediatric Surgery Unit, over a year. Sample size was thirty individuals, sampling was conducted through census, and data collection was carried out using Margaret Miles' 20-option questionnaire (1999). The validity of the said method was evaluated by content and translation validity method. Reliability of tools was conducted using Cronbach's alpha (Cronbach's alpha npst=90%). Results: The majority (100 %) of all mothers considered the nursing supports mentioned in the tool as important. According to the results, main part of nursing support given to mothers with children having colostomy hospitalized in intensive care unit and in pediatric ward, are related to information - communication and emotional subgroup and the least supports are given to the self-confidence subgroup; the most supports provided is related to communication subgroup.

Results: The results of the present study showed that mothers ask for more nursing support than what they have received. Recommendation: Parents should be encouraged to visit their hospitalized children and contribute to caregiving given to their children and express their feelings and questions.

Operative treatments of rectal prolapse open sclerosing procedure

JavanmardiM¹, Naghavi M²

1- Pediatric Surgeon Atieh Hospital Tehran

2- General Surgeon

Background: Rectal prolapse is relatively common in young children prolapse is probably a herniation of the rectum in most cases through a dilated levator mechanism. There are many nonoperative and operative approach for treatment of rectal prolapse with different results

Methods: we report an open operative treatment in twenty six children from 2005_2012 in pediatric surgery ward of Atieh Hospital in Tehran . Data evaluated in all cases include sex, age, duration of disease, and treatment approach. Follow up performed within six months to three years.

Results: 26 children aged from 2-14 years old operated due to rectal prolapse (18 male 70% 8 female 30%). Mostly were operated within 2_5 years old. The first 5 cases treated with cerclage method, and 21 operated with open sclerosing. One child with cerclage was infected and abscess formation, One child with open surgery had retrorectal abscess, one case who had 13 years old operated transe abdominal rectopexy, this patient readmitted for intestinal obstruction after one year, and the others had no complication and recurrency.

Conclusion: This study has proved that open sclerosing may be more acceptable than the other operative therapy for full thickness of rectal prolapsed in children.

The use of cell phone camera as a definitive, reliable and non-stressful diagnostic tool of rectal prolapse in children

Raisolsadat MA, Tabrizian Namini F, Ashkezari A

General Surgery Department, Islamic Azad University, Mashhad, Iran

Background: In this study we want to show the use of cell phone camera is a definitive, reliable and non-stressful diagnostic tool in rectal prolapse diagnosis in children

Methods: In a 3 years period (September 2008-september 2011), 142 parents brought their children to our general pediatrics and pediatric surgery outpatients clinics, with complain of something protruded from anus when their child was defecating, after taking the history that showed there is not an emergent condition, the pediatrician and pediatric surgeon didn't try to visual inspection and anal region examination, because of psychological trauma and refusing by the older children, the parents asked to take photos by cellphone camera,. All information prospectively recorded and reviewed

Results: Of these 142 patients, 7(5%) parents didn't come back to clinics, 10(7%) couldn't take photos. The photos provided by 125 parents and the diagnoses of all patients with rectal prolapse were confirmed. Of these 125 patients, a definitive diagnosis of rectal prolapse in 49, hemorrhoids in 31, rectal polyp in 8, and sentinel skin tag in 12 was made after confirmation the thing protruding is exact the lesion has seen in photos by the parents and in 25 of them the photos were normal or they couldn't see the thing have protruded before, these patients underwent anal physical examination and diagnostic procedures if they needed. In addition, the photos gave us an idea of the degree of rectal prolapse in patients with rectal prolapse diagnosis.

Conclusion: In a child with a protruding anal prolapse, after taking history and physical examination except anal region, parents should be encouraged to take photos with their cellphone that is available in most families. Before trying a stressful anal inspection and psychological trauma of digital exam; these photos provide definitive and reliable diagnosis in rectal prolapse.

Use of Herbal medicine in children's constipation

¹Raesolsadat MA, ²Nabi F

¹Assistant professor, Mashhad Islamic Azad University

²Assistant professor, Herbal medicine

Constipation in children is one of the most common disorders in pediatric Gastroenterology, and pediatric surgery, in 95% of constipated cases there is not an anatomical reason so functional etiologies responsible for constipation . These functional constipation can't manage simply so most of physicians(general physicians, pediatricians, and pediatric surgeons) need to use symptomatic managements ,in spite of these treatments most patients do not respond to these treatment perfectly, so patients tend to use herbal (traditional)medicine that is growing up now in the world, Iran has the richest history in this branch of medicine , we decide to start to make relation between traditional and academic medicine for management of children constipation, in first step we introduce these herbs and if possible to explain their mechanism of effects that need clinical trial to compare them with synthetic medicines.

Diagnostic value of inflammatory markers (CBC-ESR-CRP) of appendicitis in children

Amanollahi O, Salimi J

Department of pediatric surgery, Kermanshah University of Medical Sciences, Kermanshah, Iran,

Background: To evaluate the diagnostic value of inflammatory markers (CBC-ESR-CRP) for differentiation of acute appendicitis from nonspecific abdominal pain in children, combination

Methods: In this prospective study, 150 children who admitted to referral, Mohammad kermanshahi's Hospital, Kermanshah - Iran. (from june2011 to may2012)and were suspected toacute appendicitis enrolled . Careful history and physical signs were recorded and evaluated in hospital observation; decisions were made to operate or to observe on clinical backgrounds. in the study group were patients who had acute appendicitis, according to pathologic report ,and in control group were patients who had nonspecific abdominal pain. Venous blood samples were taken from all patients on admission and sent to laboratory and CBC-ESR-CRP levels were measured. Serum CRP greater than 8 micrograms per ml and ESR more than 20 mm per hour and WBC, more than 10,000 in cubic mm are considered abnormal. . Sensitivity, specificity, positive predictive and negative predictive values were calculated, for each test and in

Results: 150 patients were studied in two groups,. %54 of them was female and%46Were male. The mean age of patients in study group was 7.7 ± 1.3 year, and 8.7 ± 1.3 year in control group .in study group %80 had leukocytosis (WBC over 10000) -%64 had elevated ESR and %70.6 had elevated CRP. But in control group (non specific abdominal pain) %17.3 had leukocytosis, %25.3 had elevated ESR and%26.6 elevated CRP

Conclusion: The results of our studies showed that inflammatory markers in patients with acute appendicitis are significantly higher than children who have nonspecific abdominal pain. Measurements of these markers are valuable tools to diagnose appendicitis in children. - Diagnostic value of CBC is higher than ESR and CRP.

Recurrent and chronic appendicitis: Assessment of a new maneuver as a screening test

Banani SA, Banani J, Modjallal M, Geramizadeh B,

Department of Pediatric Surgery and Pathology, Shiraz University of Medical Sciences & Dena Hospital

Background: Recurrent and Chronic Appendicitis (RCA) are uncommon, diagnosis of which still remains challenging. The effectiveness of a new method of physical examination as a screening test in RCA is evaluated.

Methods: A prospective study was conducted during 17 years on a group of patients suspicious to RCA. All had history of intermittent or chronic, vague, peri-umbilical or lower abdominal pain beyond one month duration unresponsive to medical treatment. Being otherwise normal, they had mild local tenderness at the right lower quadrant (RLQ) region, with or without intensification by the new maneuver. After paraclinical work-ups and a course of conservative therapy, the patients were re-examined. Having still detected local tenderness, elective appendectomy was recommended. Histopathologic report was accepted as gold standard test for the diagnosis. The sensitivity and specificity of this maneuver were also determined.

Technique of the new maneuver: To be explained in the Congress

Results: 92 patients (mean age: 12.03 ± 5.8 ; range: 5–25) are included in this study. Symptoms lasted from two months to six years. All paraclinical work-ups were either normal or inconclusive. Mild tenderness at the RLQ area, intensified remarkably by this maneuver in 84 (91.3%) patients. The histopathologic reports in 85 (92%) patients revealed evidences of chronic inflammation. Follow-up period lasted 12-24 months. 86 (93.5%) patients had complete relief of symptoms and four had marked improvement after appendectomy. The sensitivity and specificity were 93% and 29%, respectively.

Conclusion: Considering the high sensitivity of the test, when the test is negative, the possibility of RCA is unlikely, whereas, a positive test, because of the low test specificity, cannot be construed as the presence of RCA. Therefore, it can be used as a good screening test. Although a positive test may be indicative of RCA, other problems (eg, mesenteric adenitis, ileitis, etc.) should also be included in the list of differential diagnosis.

دکتر لیلی مهاجرزاده، دکتر احمد خالق نژاد طبری، دکتر علیرضا میرشمیرانی، دکتر محسن روزرخ، دکتر پرند غفاری

Laparoscopic appendectomy in complicated appendicitis in children: our experience

Mohajerzadeh L, Khaleghnejad Tabari A, Mirshemirani AR, Rouzrokh M, Ghaffari P

Pediatric Surgery Research Center, Mofid Children's Hospital,

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Background/Purpose: laparoscopy for complicated appendicitis in children is not accepted procedure for majority of pediatric surgeons. This is correlated to a higher incidence of postoperative abdominal abscess reported in some studies. In this study we investigate the security, efficacy and complications of laparoscopy in children with complicated appendicitis in our center.

Methods: From April 2010 until January 2013 we performed routinely laparoscopic appendectomy in all cases of none complicated and complicated appendicitis (includes perforated appendicitis or an intra-abdominal abscess). Based on operative findings and pathological reports, we found complicated cases and retrospective reviewed them. Primary outcome measures were incidence of complications, intra-abdominal abscess, and wound infection. Secondary outcomes were length of operation, length of hospital stay, resumption of diet, incidence of bowel obstruction, duration of antibiotic use and readmission.

Results: Laparoscopic appendectomy was performed in 142 children ranging from age 2 to 14 years (mean, 8 years) over a 3 years period. 23 cases were complicated appendicitis (either localized or generalized peritonitis). There was one conversion from LA to OA in a patient with appendicular abscess with a mass were excluded from our analysis. There were 10 patients with generalized peritonitis and 12 patients with localized abscess. Two port-instruments were possible in all patients. Average duration of symptoms was 4 days (ranged 3–6 days). Mean length of operation was 52 minutes (range 40–80 min). The average length of hospital stay was 4.4 days (ranged 4–7 days). They were able to restart oral intake from 16 until 24 hours after operation. 2 patients (9%) had postoperative complications; one patient with Intra-abdominal Abscess that underwent reoperation (first patient of complicated appendicitis in our study), and Umbilical wound infection was seen in one patient and resolved with antibiotic therapy. The average follow-up was 30 days (ranged from 14–45 days).

Conclusions: We recommend laparoscopic approach to all children presenting with complicated appendicitis as initial procedure of choice.

Appendicitis in Children with unusual Presentation

MousaviA

Department of Pediatric Surgery, Booalisina's Hospital, Sari, Iran

Background: We encountered multiple cases in whom the clinical presentation, appearance of ruptured appendicitis mimicked a pelvic tumor or multiple foreign bodies mimicked perforated appendicitis. In addition, we present an appendicoileoecal anomaly and its management. Also, we explore the clinical and imaging discriminatory features between the conditions.

Methods: This report presents a rare case of multiple metallic foreign body ingestion and duodenal perforation in a 16-year-old boy, demonstrated by plain abdomen X-Ray. He presented with epigastric pain that shifted to RLQ mimicked acute appendicitis-like symptoms. The second case is an 11-year-old female who presented with abdominal pain and vomiting from last week. The patient had an irregular medication with difference antibiotics and corticosteroid. Ultrasonography and plain abdomen X-Ray had shown a pelvic dermoid cyst. Also, we present a patient with inborn appendicoileoecal anomaly and its new management.

Results: The first case had operated and found ten large metallic knife, blade and wire in stomach, duodenum and colon. The duodenal perforation mimicked acute appendicitis. In second case, because of progressive clinical signs of peritonitis, an exploratory laparotomy was performed and the patient was found to have a perforated appendicitis and a large fecalith. On the other hand, in last patient we successfully preserved the ileocecal valve and the terminal ileum through opening a valve and tapering the ileum plus appendectomy in one operation.

Conclusion: Taking an exact medical history and physical examination are the best method for diagnosis of appendiceal problems. Furthermore, Clinical correlation and careful multiple evaluation should allow for sonographic suspicion of perforated appendicitis, which can be confirmed on CT, if necessary.

دکتر فرید اسکندری، دکتر هوشنگ پورنگ، دکتر منصور ملائیان، دکتر مانا فرهنگی، دکتر اسماعیل دارابی، دکتر میترا آذرشاهین، دکتر ابراهیم اسپهبدی، دکتر حجت الله راجی

Laparoscopic Appendectomy in Pediatric Patients

Eskandari F, Pourang H, Mollaeian M, Farhangi M, Darabi E, azarshahin M, Espahbodi E, Raji H

Pediatric Department of Surgery, Bahrami Children's Hospital, Tehran University of Medical Sciences, Tehran, Iran

Background: Appendicitis is one of the most common surgical emergencies in childhood. Open appendectomy has been the standard treatment for decades for all forms of this disease with excellent results. Nowadays, with development of minimally invasive techniques for an increasing number of surgical conditions, laparoscopic appendectomy is going to become a common approach and even the treatment of choice for appendicitis in childhood in many centers.

Patients and Methods: We did a prospective study of all patients who underwent laparoscopic appendectomy from September 2011 to December 2013 in Bahrami Children's Hospital. Outcomes including demographics, clinical and sonographic findings, final diagnosis, operative time, and length of stay, complications, subsequent readmissions, and the need for additional procedures were evaluated.

Results: A total of 292 patients underwent laparoscopic appendectomy in our center during the period. The majorities of the patients were male (76.4%). Most of patients were between 7 to 9 years old (49.4%), with mean age 7.53 ± 2.80 years. Mean operating time was 27.56 ± 17.85 minutes. Mean post operative feeding tolerance period was 1.40 ± 0.32 days, and the average length of stay was 2.75 ± 1.49 days. Sixty four patients (21.9%) had complicated appendicitis. Laparoscopic procedure converted to open surgery in 3 cases (1%). Four patients (1.4%) needed to be readmitted and reoperated because of collections: one intramural and interabdominal hematoma, one RLQ abscess and two pelvic abscesses.

Conclusions: Laparoscopic appendectomy is a safe and effective alternative technique in acute pediatric appendicitis surgery. Both operative and postoperative complications are not increased. The need for rehospitalization, reoperation, and postoperative abscess drainage is small, so in our hospital, laparoscopic appendectomy has become the procedure of choice for treatment of appendicitis in children.

Sigmoid volvulus in children

¹Nazem M, ²Hosseinpour M

¹Department of Pediatric Surgery, Al-Zahra General Hospital, Isfahan University of Medical Sciences, Isfahan, Iran

Introduction: Sigmoid volvulus (SV) is a rare finding in children. The main predisposing factor to sigmoid volvulus is a large, redundant sigmoid colon with a narrow base, but exact mechanism of SV is unclear. Associated mental retardation, hirschsprung disease, intestinal dysmotility and chronic constipation.

Abstract: Seven children with acute intestinal obstruction from sigmoid volvulus are reported. The median age of presentation was (1.5 to 12 years). Abdominal pain, distension, vomiting and constipation were the main features. Treatment was by resection and anastomosis in 4 cases and 3 children were by resection and colostomy. The diagnosis is established at BE (3 patients) and laparotomy (4 patients). The prognosis is good.

Material and methods: In the period 1373 to 1390, 7 patients less than 14 years were treated for sigmoid volvulus at the Alzahra and Kashani hospital. Two had intraoperative confirmation of sigmoid volvulus, 3 of whom had ischemic sigmoid colocolitis.

Result: There were five boys and 2 girls whose ages ranged from 1.5 to 12 years (median 5.4 years). Five presented with features of acute intestinal obstruction. The duration of symptoms ranged from 1 day to 1 month. Laparotomy was performed. Sigmoid volvulus with ischemic was found in 3 cases and sigmoid volvulus alone in 4 cases. Deterioration only was done in 3 children that segment was resected sigmoid colectomy with colostomy and mucous fistula. All the others underwent sigmoid resection and end to end anastomosis. Wound infections occurred in 3 patients. Follow up was done and there have been no recurrences.

Discussion: Sigmoid volvulus is a rare occurrence in children. Several predisposing factors to sigmoid volvulus have been reported, no predisposing cause could be identified in 4 patients, in two the sigmoid colon was large and in one case was a band. Although mortality can be high, meticulous attention to the rapid correction of fluid and electrolyte depletion, appropriate use of antibiotics, and early surgical intervention should ensure survival.

دکتر جواد نصیری، دکتر فریبا جهانگیری، دکتر بیروز فرهود، دکتر مریم قوامی عادل، دکتر صلاح الدین دلشاد

Mild Anterior location of the anus would be as a hidden cause of intractable constipation. Review of our experience.

Nassiri J, Jahangir F, Farhoud P, Ghavami Adel M, Delshad S

Ali Asghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Anterior location of a normal anus may be a cause of intractable constipation in some children. We have done a retrospective review of our cases which were treated for this problem over the past six years, at the Iran University of Medical Sciences, Aliasghar Children's Hospital. In all of the cases the anal verge had a fish bone shape instead of circumferential and Hirschsprung's disease had been ruled out by rectal biopsy or rectal manometry. Mean age of presentation of constipation was 7 month and mean age of surgical treatment was 3.2 years. In all of the patients after General anesthesia, lithotomy position, prep and drape; at first the external muscle contraction was checked, the distance between the posterior ring of the muscle during contraction and the posterior edge of the orifice of the anus was measured. For all cases, inverted Y-V plasty was done except in tow cases which had some posterior displacement by releasing the whole distal part of rectum. Two of the patients experienced anal stenosis, one of them cured by a minor surgery and the other cured by weekly anal dilatation. Mean follow up duration was 2 years. All the patients after a few months of bowel training had comfort defecation.

Evaluation of Result of Surgical Treatment of 51 Children with Fecal Incontinency in 3 Hospitals in Tehran

Delshad S

Department of Pediatric Surgery, Ali Asghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Introduction and the aim of study: Fecal incontinence in children is one of the tormenting conditions and if untreated, leads to social disability (1). According to Surgical field, the incontinence can be divided in to two groups. The first, including the patients with normal pelvic floor and anal Sphincter, but the problem is in the innervation. Patients suffering from myelomeningocele, spina bifida, brain and spinal cord trauma are in this group. In the second group, the innervation of pelvic floor and anal Sphinefer is normal but the Problem is in the muscles. The patients have complete or partial rectal mislocation (misplacement) after anorectoplasty procedures for Anorectal malformations and pelvic floor muscles impairment due to trauma, are in this group.

The aim of this study is to assess long term results of surgical treatment and complications for each method in patients with fecal incontinence.

Materials and method: This is a descriptive and retrospective study of patients with fecal incontinence whom treated surgically by author in period between May 1992 and March 2010 in three Tehran hospitals

According to the division mentioned in the introduction, 14 patients were in first group (normal pelvic floor with problem in innervations). The causes of fecal incontinence in this group were Myelomeningocele in 10, spina bifida in 2, cerebral palsy in one and one patient had pull-through procedure for Hirschsprung's disease. For these cases and other two patients which they underwent unsuccessful anorectoplasty for imperforate anus in one and cloacal anomaly in the another, Antegrade Colonic Enema (ACE) have been done.

From 38 cases in the second group, in 4 cases that had incontinence after perineo-abdominal procedure underwent second anorectoplasty (Alberto pena procedure). In 21 cases who had incontinence after posterior sggitalanorectoplasty (Alberto Pena method), Partial rectal mislocation is detected in 14 patients in different ages and sphincteroplasty have made for them. In 6 cases with complete rectal mislocation treated by rectal relocation procedures. In 3 child impairment, Sphincteroplasty have done. In two cases suffered from incontinence after failed anorectoplasty procedure for cloacal anomalies anomalies, ileostomy in one and ACE in another have done.

The Results: All 15 patients who underwent ACE procedure, by making enema with water or saline, 2-3 time weekly, became dry. The defects of anal sphincter in partial rectal mislocations were at 12 o'clock with supine position in 6, at 3 o'clock in 2, at 6 o'clock in 5 and at 9 o'clock in one patient. After repair of anal sphincter (sphincterplorsty) the results were as a good in 10 with some soiling in 2 and gas incontinence in 2 patients.

Conclusion: According to the causes more of the patients with fecal incontinence, can be treated surgically. After anorectoplasty procedures for imperforate anus partial rectal mislocation due to anal sphincter defect is the most cause of incontinence. The common areas of the defect are 12 and 6 o'clock in supine position. So the pediatric surgeons should be pay more attention when do reconstruction procedures for imperforate anus. The ACE procedure is the best surgical management for incontinent patients with neurologic origine and those with pelvic floor muscles agenesis.

Totally Transanal Laparo-endoscopic Pull-Through Colectomy

Single-site ileal J-pouch (TLPC-J)

Experimental study of a novel approach for avoiding abdominal wall

Incision for total colectomy

¹Vahdad M, ²Foroutan A, ²Soltan Najafi M, ¹Cernaianu G, ¹Bodo Trobs R, ²Banani A, ²Foroutan H,

¹Marien Hospital, Bochum University, Bochum, Germany

² Mother and Child Hospital, Shiraz University of Medical Sciences, Shiraz, Iran

Introduction: Minimally invasive surgery in patients requiring total colectomy undergoes constant modifications with the aim to avoid abdominal wall incisions. This goal was reached by the combination of Laparo-endoscopic single-site (LESS) surgery and natural orifice transluminal endoscopic surgery (NOTES™) for totally transanal LESS pull-through colectomy (TLPC).

We further developed TLPC and describe a novel technique for the creation of a totally transanal ileal J-pouch (TLPC-J).

Methods: TLPC-J was performed in four dogs. The TLPC-J procedure consisted of an endorectal technique with submucosal dissection starting 1 cm orally from the dentate line to above the peritoneal reflection, where the rectal muscle was divided circumferentially. After ligation of the rectal mucosa, the proximal bowel was replaced into the abdominal cavity and a TriPort® was introduced transanally. Mesenterial resection of the complete colon, mobilization of a distal ileal segment, and extra corporeal suture of an ileal J-loop were accomplished via the transanal approach. The mobilized ileum was reached and pulled down to the site of anastomosis. An incision in the J-loop was accomplished transanally. The J-pouch was created with an Endo-GIA®. After removal of the TriPort® the J-pouch was sutured to the rectal wall.

Results: All animals displayed regular bowel movements and were complication-free during the follow-up period of up to 6 months.

Conclusion: TLPC-J combines the minimally invasive LESS surgery with the scarless concept of NOTES™ and allows creation of an ileal J-pouch without abdominal incision. TLPC-J is a safe, effective, and feasible surgical procedure in total colectomy.

Intrasphincteric botulinum toxin injection in treatment of chronic idiopathic constipation in children

Ahmadi J, Ashjaei B

Department of pediatric surgery, Tehran University of Medical Science, Tehran, Iran

Background: Constipation is a common problem in children, accounts for about 25% of a paediatric gastroenterologist's work and is one of the 10 most common problems seen by general paediatricians, and when it becomes chronic fecal impaction, overflow soiling and megarectum may develop. Children with chronic idiopathic constipation (IC) may not respond to conventional treatments of laxatives, enemas, and toilet training. However, a number of surgical options may be considered when medical treatment fails. Myectomy of the internal anal sphincter (IAS) has been performed on some children after failure of medical treatment to treat idiopathic constipation. botulinum toxin is a new therapeutic agent in the treatment of chronic idiopathic constipation in children and less invasive than myectomy of the internal anal sphincter (IAS). The aims of the study were to evaluate the outcome of intrasphincteric injection of botulinum toxin into for treatment of chronic idiopathic constipation and to assess the symptoms with control group.

Methods: This was a randomized control trial(RCT).Patients were included in the study if they had failed to respond to laxative treatment for chronic idiopathic constipation and pediatricians referred the patients to the pediatric surgeons, for further management of chronic idiopathic constipation. Perineal examination in first step provided that they did not have macroscopic anomalies. Also, manometry and rectal biopsy was performed in all children. Those with ganglion cells in rectal biopsy and who had high rectal threshold rectoanal inhibitory reflex or absent RAIR in manometry entered the study. The patients were randomly divided into cases and control group. The control group received no injection and was treated exclusively with stool softeners. The case group received botulinum toxin injection in addition to this therapy.

Results: The sample size was 127 patients. The case group was 70 patients and the control group was 57 patients. Defecation of painful stool existed in 51(89.47%) of patients before botox injection and it was reduced to 7(12.28%) after botox injection. In the control group, 65(92.85%) of patients had painful defecation, which reduced to 5(8.42%) after medical treatment (P=0.0001). Stool was hard in 46(80.70%) of patients before was reduced to 12(21.05%) after botox injection. In the control group, it existed in 57(81.42%) of children and reduced to 5(8.00%) after medical treatment (P=0.0001). Soiling existed in 38(66.66%) of patients before and was reduced to 6(10.52%) after botox injection, but in the control group it reduced from 45(64.28 %) to 28(40%) after medical treatment (P=0.0001).

Conclusion: Our study results showed that injection of botulinum toxin into anal sphincter is an effective and safe new treatment of chronic idiopathic constipation in children.

Comparison of one stage and conventional triple-stage repair in imperforated auns with rectovestibular fistula

Amanollahi O, Ketabchian S

Department of Pediatric Surgery, Mohammad Kermanshah's Hospital,

Kermanshah University of Medical Sciences, Kermanshah, Iran

Background: This study is a blind, randomized clinical trial. Purpose of this study is comparison between complications of two methods of surgery (single stage and conventional triple stage) in repair of imperforated anus with rectovestibular fistula in female infants who are candidates for surgical repair.

Methods: A total of 40 patients are randomly allocated to two groups of intervention. In first group (single stage surgery) patients after primary preparations undergo Posterior Sagittal Anorectoplasty procedure. In second group (conventional triple stage surgery) at first stage, patients undergo sigmoid colostomy and then at second stage, a Posterior Sagittal Ano Recto Plasty (PSRP) had been done and at third stage, patients underwent colostomy closure. Both groups will be followed intraoperatively and in first week, first month, third month and sixth month after surgery and complications (wound infection, dehiscence, anal deformity and stricture or displacement, and vaginal trauma, or fistula, and fecal continency) compared.

Results: There was a significant difference between wound infection and dehiscence rate in two groups. But there were no differences in other major and important complications and final continency in both groups.

Conclusion: Despite some minor complications, it seems that the single stage surgery is a safe and advisable method in these patients.

Outcom of anorectal malformations' surgery during 10 Years

Davari H, Sabet B, Mazahery M

Pediatric surgery Department, Al-Zahra General Hospital, Isfahan University of Medical Sciences, Isfahan, Iran

Background & Purpose: Anorectal malformations are among the most common disorders of children .the prevalence is 1 over 5000 alive birth. These anomalies are accompanied other congenital disorders in 50 to 60% of cases. In this study, we evaluated the early and late outcome of surgical treatment of patients with imperforate anus during 10 years.

Materials& Methods: In a cross- sectional study, children referred to Al-Zahra hospital for imperforate anus who treated by surgical intervention were evaluated. Data were collected by hospital data sheet and re-examination of patients. In some cases follow up done by dialing the parents.

Results: One hundred forty two patients were studied (83 boys, 59 girls). In 72.5 % of patients imperforate anus was high type. 69% of patients had fistula. Mortality rate of patients was 15.5% (22 cases) .All of expired cases had high type anomaly.

The most common type of operation was PSARP (40. 8%). Constipation was the most common early complication (20.4%).

Rectal prolepses were the rarest complication (4.6%). Constipation (12.5%) and incontinence (10.5%) were most common late complications. Late complications were more common in high type imperforate anus.

Conclusion: Mortality and late complications were more common in high type imperforate anus, in-patient with associated anomalies and in them with major procedures.

Our experience with: Familial Adenomatous Polyposis (FAP)

Farhoud P

Ali Asghar Children's Hospital, Iran University of Medical Science, Tehran, Iran

FAP is distinguished by the progressive development of hundreds to thousands of adenomatous polyps in the colon. By 15 years of age 50% of those that carry the FAP gene will have polyps. The lifetime risk for developing colorectal cancer is 100%. We had two cases of FAP during two years, one 8 years old boy and one 18 months old girl. The boy had thousands adenomatous polyps in the colon and terminal ileum and a few in the duodenum. His brother and father had FAP. The first sign was rectal bleeding and colonoscopy and gastroduodenoscopy was performed which confirmed FAP. Total colectomy and resection of terminal ileum and ileoanal pouch procedure was performed for him. After two years post surgery he is well. The girl's chief complaint was rectal bleeding and in ultra sonography in 18 months old she had intussusception and in laparotomy for reduction intussusception we found the entire colon and small bowel had thousands polyps. In gastroduodenoscopy she had a few polyps in duodenum. She had three times laparotomy for reduction intussusceptions with two months interval and now she needs intestine transplantation for relief.

Treatment of constipation in children based on anorectal manometry findings

vahidhosseini M

Department of Pediatric Surgery, Hormozgan University of Medical Sciences,

Bandar Abbas Children's Hospital, Bandar Abbas, Iran

Background: Constipation is a common symptom in children and manometry can be a useful diagnostic method in choosing suitable therapeutic methods for these patients.

Aim: the aim of this study was to assess the manometric findings and determine its role in the management of children with constipation referred to our hospital.

Setting and Design: This was a descriptive cross-sectional study.

Materials and Methods: It was carried out on patients referred from September 2006 to December 2009 to the children hospital for performance of anorectal manometry because of constipation. They received their treatment according to findings at manometry (normal, absent, dilated, and retentive) with Botulinum toxin (BT) injection, surgery, enema, and medications, respectively. For each patient, variables such as age, sex, chief complaint, manometry result, food regimen, and treatment method were recorded. Symptom severity scale was assessed using a scored questionnaire.

Statistical Analysis: Data were analyzed using SPSS 17 and descriptive statistics, t-test, and X².

Results: Seventy-one patients were included in our study. The mean age of the participants was 4.98 ± 1 . Sixteen (22%) had acut, and 49 (55.7%) had chronic constipation. Seventeen (25.4%) had a diagnosis Hirschsprung's disease and 22 patients (31%) had retentive type constipation. Nineteen patients (28.8%) received pull through treatment and 27 (38%) received BT, while 34 (47.9%) received medical treatment. Mean symptom severity score after treatment was 3.88 and 4.59 in males and females, respectively. This difference was statistically significant ($p= 0.03$). There was no statistically significant difference after treatment according to other variables.

Conclusions: our study results were comparable with studies that reported as an effective role for manometry in diagnosis and planning the type of treatment in constipated children. And is a useful physiologic tool for measuring anorectal complex function.

دکتر هوشنگ پورنگ، دکتر منصور ملائیان، دکتر فرید اسکندری، دکتر حجت الله راجی، دکتر مانا فرهنگی، دکتر اسماعیل دارابی، دکتر میترا آذر شاهین، دکتر ابراهیم اسپهبدی

Colonic Atresia – three Case Report

Pourang H, Mollaeian M, Eskandari F, Raji H, Farhangi M, Darabi E, Azarshahin M, Espahbodi E

Department of Pediatric Surgery, Bahrami Children's Hospital, Tehran University of Medical Sciences, Tehran, Iran

The etiology of atresia of the intestine is still uncertain. Duodenal atresia appears to be caused mainly by a developmental arrest in the proliferative stage, whereas jejunal, ileal, and colonic atresia may be caused by impairment of the blood supply.

Colonic Atresia (CA) is one of the rarest causes of neonatal intestinal obstructions. The incidence is one out of every 15,000 to 60,000 neonates, accounting for 1.8% to 15% of all congenital atresia cases. The treatment of colonic atresia is either by resection and primary anastomosis or colostomy and delayed anastomosis, according to the condition of the patient.

In a short period of 2 years we report 3 cases of colon atresia in our center. One was 17days-old female with colon atresia and other 2 were 3months-old male with a web in the sigmoid colon .All the three presented with abdominal distension and bilious vomiting. Barium enema demonstrated filling defect at the junction between descending colon and sigmoid colon. Laparotomy and resection of the atretic segment with proximal stoma was performed in each case. In one patient, histologic examination revealed agangliosis in the colostomy site and the diagnosis of Hirschsprung's in combination with colon atresia was made.

دکتر هوشنگ پورنگ، دکتر منصور ملائیان، دکتر فرید اسکندری، دکتر حجت الله راجی، دکتر مانا فرهنگی، دکتر اسماعیل دارابی، دکتر میترا آذر شاهین، دکتر ابراهیم اسپهبدی

Colonic duplication

Pourang H, Mollaeian M, Eskandari F, Raji H, Farhangi M, Darabi E, Azarshahin M, Espahbodi E

Department of Pediatric Surgery, Bahrami Children's Hospital, Tehran University of Medical Sciences, Tehran, Iran

Colonic duplications may exist in a variety of shapes and sizes. A Colonic duplications may originate at any point on the intestinal circumference and shares both the blood supply and the

Muscular wall of the typical colon. Colonic duplications are also referred to as a true diverticula, because they contain all the layers of the typical colon.

There is no typical presentation for Colonic duplications. Most are detected early in life, especially when there are associated genitourinary, anorectal, or vertebral malformations (60%-75%).

Otherwise, they can stay hidden for a long period, exhibiting only certain minor symptoms. The clinical presentation is different, ranging from an absence of symptoms to a fully developed picture of an acute abdomen. Mostly, the symptoms are related to intestinal obstruction, volvulus, and focal intestinal infarction. The treatment of Colonic duplications in symptomatic patients is surgical. Radical resection is considered to be the best treatment but it is not always possible to do solely without resection of adjacent bowel. It should be kept in mind that these are benign lesions and so should be treated without jeopardizing vital structures.

This paper introduces some patients whom were finally diagnosed with colonic duplication, and being treated in Bahrami Children's Hospital.

Complete colonic duplication presented as pelvic mass and rectocele

KhaleghnejadTabari A, KhaleghnejadTabari N, Mirshemirani AR

Pediatric Surgery Research Center

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Purpose: complete colonic duplication is very rare anomalies that may have different presentation according its location and size. Complete colorectal duplication can occur in 15% of gastrointestinal duplication. This report presents a complete colorectal duplication that presented as chronic constipation, pelvic mass and rectocele.

Case Report: a 2 years old boy presented to clinic with abdominal protrusion, difficulty to defecate, chronic constipation and prolapse of mucosa covered bulging (rectocele) since age 6 months. On examination abdomen was soft with palpable pelvic mass with doughy consistency. Rectal exam confirmed prerectal mass with soft consistency. Plain abdominal X-ray showed dilated bowel loops and soft tissue pelvic mass that pushed rectum anteriorly and cervical hemi-vertebra. Barium enema and abdominal and pelvic CT confirmed the same finding. US revealed absence of right kidney that confirmed by DMSA scan, VCUG was normal. Laparotomy was performed, there was a complete colorectal duplication with one blinded end and accumulation of huge amount of stool that protruded as mucosa covered bulging during defecation (rectocele). The duplicated colon has common mesentery and resection of one part was impossible. The mucosal web was resected and the two ends of duplicated colon were fenestrated to each other and opened to common anal canal and all fecal impaction was evacuated and patient had very good post operation recovery and discharged from hospital in a week time. In two year follow up has normal defecation and good weight gain without any problem with duplicated colon.

Conclusion: The side to side total colorectal duplication may associated with urinary and vertebral anomalies and can be treated with simple resection of distal common wall, fenestration.

Redo in Posterior Sagittal Anorectal Plasty (PSARP) in children

Mollaeian M, Pourang H, Eskandari F

Department of Surgery, Bahrami children's Hospital, Tehran University of Medical Sciences, Tehran, Iran

Secondary operations are performed in patients who fall into one of the followings:

A. Patients who underwent an attempted repair of an anorectal defect that failed. These patients suffered a severe post op complication that may include complete dehiscence of the pulled-through rectum, stricture, or recurrence of a fistula.

B. Patients suffering from fecal incontinence subsequent to a repaired anorectal malformation in the A group there are Recurrent rectourethral fistula, strictured lower rectum, damaged levator muscle and muscle complex, Giant urethral diverticulum, anteriorly mislocated anus, persistent urogenital sinus, failed repair of a cloaca. Ideal candidate for secondary operations are those who have very clear clinical or radiologic evidence of a mislocated rectum with evidence of good muscles and a good sacrum. Patients with more than three vertebrae missing or with poor muscles have been poor in terms of bowel control.

Damaged anal canal as a cause of fecal incontinence after surgical repair for H.D.

A preventable and under reported complication

Mollaeian M, Pourang H, Eskandari F

Department of Surgery, Bahrami children's Hospital, Tehran University of Medical Sciences, Tehran, Iran

Continence is the result of a complex physiologic function, dependent on motor function, sensory input, extrinsic neural modulation, spinal pathways, and cerebral control. Normally, water is absorbed as fecal material passes along the colon. There is slowing of forward propulsion in the sigmoid area with feces being normally stored above the rectum. Excision of the distal aganglionic bowel removes

A segment that normally slows fecal progress, Therefore peristalsis carries feces rapidly to the anal area, without further water absorption.

Pelvic dissection produces at least neuropraxia and often Division of nerve tracts, thereby disturbing sensory pathways to the spinal cord. The anorectal mobilization similarly vigorously stretches the anal sphincters and removes or disturbs the mucosal attachment to the underlying muscles.

Continence also has a social dimension.

The data don't suggest that one procedure is clearly superior; and consensus of surgical opinion is that the best results are achieved by a procedure the surgeon is well trained to perform and use frequently.

In Iran we have not studied the problem routinely, but we have some form of functional disturbance in many cases. We will discuss the problem in different techniques.

Early insertion of trans-prineal port in laparoscopic anorectoplasty: A new concept

Mousavi Khoshdel M, Nasiri J, Delshad S

Aliasghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Background: High imperforate anus and persistent cloac are among complex diseases in pediatric surgery. Traditionally this patients treated trough posterosagital and laparotomy approach for closure of rectovesical fistula or cloac anomaly fistula. Laparoscopic approach is alternative treatment that is in beginning of way and is chose of therapy in some centers .Intra corporal suturing and sometimes knotting is necessary for closure of fistula. This sometimes is difficult and time consuming process.

We decided to discuss some first cases operated in our center and modifications in the technique.

Surgical technique: All patients operated under general anesthesia in lithotomy position. In classic method rectal fistula must be sutured and Ligated after laparoscopic dissection of rectum that sometimes is difficult. Perineal port must be inserted after this for pulling out of the rectum. We inserted perineal port after dissection of rectum and before cutting off fistula and used it for manipulation and clipping of fistula .Then we removed the port and pulled out the rectum by right angle clamp. Remainder of the operation was done classically.

Material &Method: We have done 3 laparoscopic anorectoplasty on 2 cases of persistentcloac and 1 case of high imperforated anus patients.

Results: In this manner suturing and ligation time was saved and all operations were done easily without complication.

Conclusion: We think these modifications can reduce the operation time and simplify the operation so that there is no need to suturing and knotting skill.

Sacrum and sacral ratio as measurable index in patient with anorectal malformations

Dr. Hadipoor A

Department of Pediatric Surgery Research Center, Babol University of Medical Sciences, Babol, Iran

The functional result after anorectal malformation (ARM) reconstruction such as constipation, soiling, incontinence is very variable.

Acceptable time for fecal continence is usually at about 3 years. In addition of history and physical examination, manometry, sphincter evaluation and radiography are methods of evaluation.

Because sacrum has a basic role in continence and sacral anomaly is common in ARM, evaluation of sacral ratio (SR) is a reliable method for assessment of final outcome.

The normal sacral ratio is ≥ 7.7 and lower than 0.7 seems correlated with bowel and urinary dysfunction and patients lower than 0.4 are strongly incontinence.

SR measurement is a good index for evaluation of patients with ARM and other problems in spinal cord and urinary system.

Conclusion: There are different results about SR and bowel continent in ARM patients, but seems is very good, simple and measurable prognostic index for surgeon, family and patient.