

EVALUATION OF HIRSCHSPRUNG’S ASSOCIATED ENTEROCOLITIS AS A POSTOPERATIVE COMPLICATION AND ITS MANAGEMENT IN ALEXANDRIA UNIVERSITY CHILDREN’S HOSPITAL

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Introduction

Hirschsprung associated enterocolitis (HAEC) is a common and sometimes life-threatening complication of Hirschsprung disease (HSD). Presenting either before or after definitive surgery for HSD, it may manifest clinically as abdominal distension and explosive diarrhea, along with emesis, fever, lethargy and even shock. The pathogenesis of HAEC involves a complex interplay between a dysfunctional enteric nervous system, abnormal mucin production, insufficient immunoglobulin secretion and unbalanced intestinal microflora. Early recognition of HAEC and preventive practices such as rectal wash outs following a pull through can lead to improved outcomes. Treatment strategies for acute HAEC include timely resuscitation, colonic decompression and antibiotics. Recurrent or persistent HAEC requires evaluation for mechanical obstruction or residual aganglionosis and may require surgical treatment with posterior myectomy or redo pull through.

Aim of the work

This study aimed to evaluate HAEC as a postoperative complication in children who were admitted after pull-through regarding the type of surgery, incidence, clinical presentation, sepsis workup, and management in Alexandria University Children’s Hospital at El- Shatby

Patients and Methods

The data of 30 patients who underwent pull through surgery for Hirschsprung's disease over a period of 2 years were retrospectively reviewed. The files were analyzed for pattern of clinical presentation, age at primary surgery, the type of the initial definitive procedure, approach used, the clinical course following initial surgery, diagnostic workup including imaging such as x- rays and contrast enema, biopsies such as fresh frozen and rectal biopsies, manometry and laboratory studies and management of the enterocolitis as a complication conservatively and redo surgeries.

Results

Our study revealed that 80% of the studied patients were males more than females who were only 20%. Of the 30 studied patients, 8 (26.67%) presented with history of delayed passage of meconium in neonatal period and 22(73.33%) presented later in infancy with abdominal distension and enterocolitis and (76.7%) of the studied patients presented with clinical grade 1 with the following signs and symptoms, anorexia, diarrhea, and abdominal distension, 6 patients(20%) presented with grade II signs including fever, explosive diarrhea, abdominal distension and tenderness, and lethargy and only 1 patient (3.3%) presented with grade III signs and symptoms: pneumoperitoneum, hypotension, altered mentation, abdominal distension and peritonitis. Majority (23) had no frozen biopsies done as they were successfully treated by conservative means except 7 who had abdominal approach and stomas. A post-colostomy rectal biopsy was done in 27 patients and all showed aganglionosis. Three patients didn’t do rectal biopsy and they were of Rehbein procedure. Three patients underwent postoperative contrast enemas of which 1 patient (33.3%) had distal narrow segment and 2 (66.7%) had dilated distal segment. Three of the 30 patients (10%) had a Rehbein procedure, 16 (53.33%) had a Soave procedure, 5 (16.67 had Swenson and 6 (20%) had Duhamel. Ten of the 30 study patients (33.3%) underwent an abdominal approach, 5(16.7%) had a trans-anal approach and 15 (50%) had a laparoscopic assisted approach. Conservative management with rectal irrigation and antibiotics was used in 30 patients but was only successful in 26 patients (86.7%). Twenty-three patients had rectal tube inserted for 5days, four patients for 7 days and three patients for 4 days. Four patients (13.3%) had redo surgery following recurrent episodes of HAEC. Our data suggest that many of the patients improved by conservative means i.e. (rectal irrigation, iv fluids) and the use of antibiotics.

Table (1): Postoperative management in the postoperative Hirschsprung-associated enterocolitis patients

Postoperative management	n (%)
First line Conservative rectal irrigation and antibiotics.	
▪ Success	26(86.7)
▪ No success	4(13.3)
Total	30(100)
Second line redo surgery	
▪ Success	4(100)
▪ No success	0
Total	4(100)

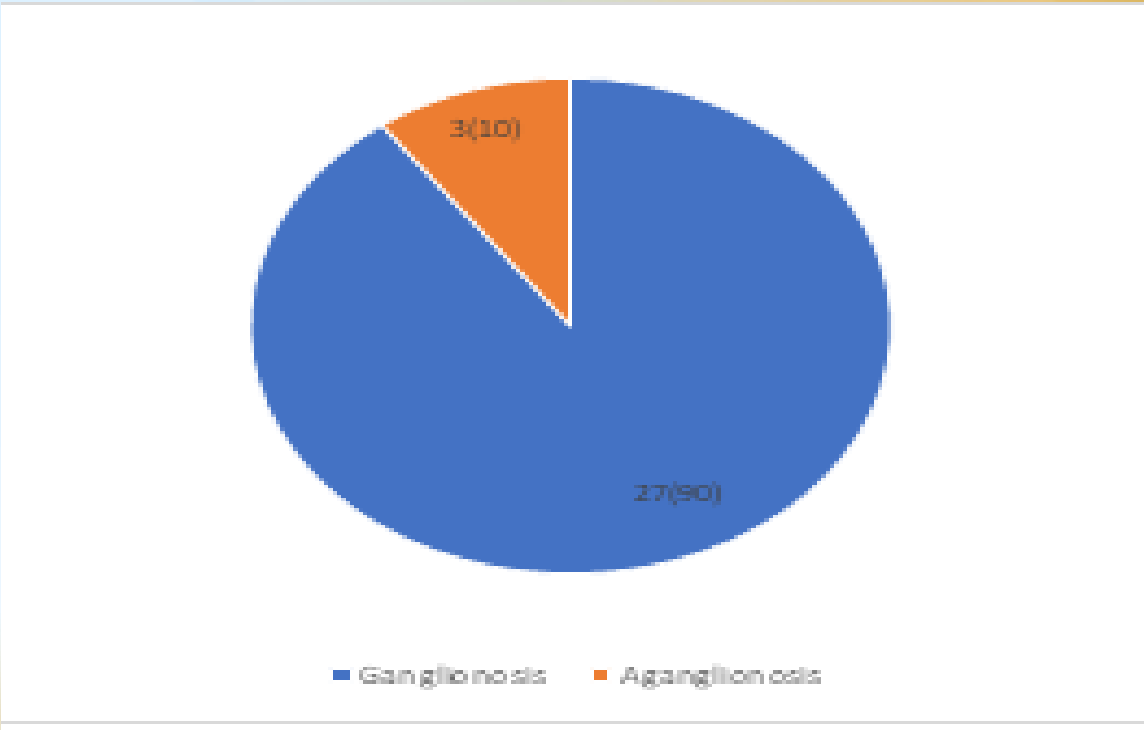


Figure (1): Pie chart showing postoperative rectal biopsy in the postoperative Hirschsprung-associated enterocolitis patients.

Conclusion

Conservative management that is, intestinal decompression, antibiotics and rectal washouts remain the cornerstone of treatment for acute Hirschsprung-associated enterocolitis.