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Case Report

Ileoileal Intussusception Associated with Henoch-Schonlein's Purpura: Laparoscopic Reduction is a Viable Treatment Option

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ABSTRACT

Intussusception is a known complication of Henoch-Schonlein purpura, the most common systemic small-vessel vasculitis is childhood. We report a previously healthy 5 year old boy with purpuric rash bilateral lower extremities over a 3 week period of time, being treated with steroids. He presented with 24hrs of intermittent, crampy abdominal pain with associated nausea. Physical exam revealed mild abdominal distention with diffuse tenderness and a macular non-blanching rash scattered on his bilateral lower extremities. Laboratory analysis was normal except for a WBC of 15 with a left shift. CT abdomen and pelvis with contrast demonstrated thickening of several loops of mid and distal ileum with evidence of ileoileal intussusception. A diagnostic laparoscopy was performed; the affected segment of small bowel was edematous, pink and viable without signs of ischemia. Laparoscopic reduction of the ileoileal intussusception was done. Laparoscopic reduction is a viable option for patients with HSP complicated by intussusception. Laparoscopic approaches especially for early stages can decrease postoperative morbidity and hospital stay.

KEYWORDS: Henoch-Schonlein purpura, Intussusception.

INTRODUCTION

Intussusception is a known complication of Henoch-Schonlein purpura (HSP), the most common systemic small-vessel vasculitis is childhood. HSP is characterized by purpuric rash principally on the buttocks and lower extremities, arthritis, nephritis and gastrointestinal symptoms[1].It is postulated that intussusception is due to submucosal edema and hemorrhage of the small bowel, which becomes a lead point. There is an even distribution between ileoileal and ileocolic intussusception in HSP rather than in idiopathic intussusceptions where they tend to be mostly ileocolic[2].

CASE REPORT

We report a previously healthy 5 year old boy with clinical manifestations of HSP, including purpuric rash bilateral lower extremities over a 3 week period of time, being treated with steroids. He presented with 24hrs of intermittent, crampy abdominal pain with associated nausea. On exam he was hemodynamically stable, in moderate distress. Physical exam revealed mild abdominal distention with diffuse tenderness to palpation without rebound or guarding. He also had a macular non-blanching rash scattered on his bilateral lower extremities. Laboratory analysis was normal except for a WBC of 15 with a left shift. He initially had an abdominal Xray, which showed moderate amount of air in several dilated loops of small bowel with no evidence of pneumoperitoneum. CT abdomen and pelvis with contrast (Figure 1, 2) demonstrated thickening of several loops of mid and distal ileum with evidence of ileoileal intussusception. The abnormal segment of bowel measured 2.8 cm in diameter. There was also a small amount of diffuse ascites.

The patient was taken to the operating room immediately. A diagnostic laparoscopy was performed the affected segment of small bowel was edematous, pink and viable (Fig 3) without signs of ischemia. We chose to proceed with laparoscopic reduction of the ileoileal intussusception (Fig 4) given the age of the patient and the unlikelihood of a pathologic lead point. The patient was admitted to the pediatric intensive care unit postoperative monitoring. He was kept NPO with NGT to LWS for 24hrs and also received stress dose hydrocortisone for that first day. On POD #2 he was transferred to the pediatric floor. Pain was controlled with acetaminophen. On POD #3 the nasogastric tube was discontinued, patient was passing flatus and had a small bowel movement. He was started on clear liquids, which he tolerated and diet was advanced that evening. He was discharged home on POD #4 on regular diet. Patient was followed up for two years after surgery and he is doing fine without any recurrence.

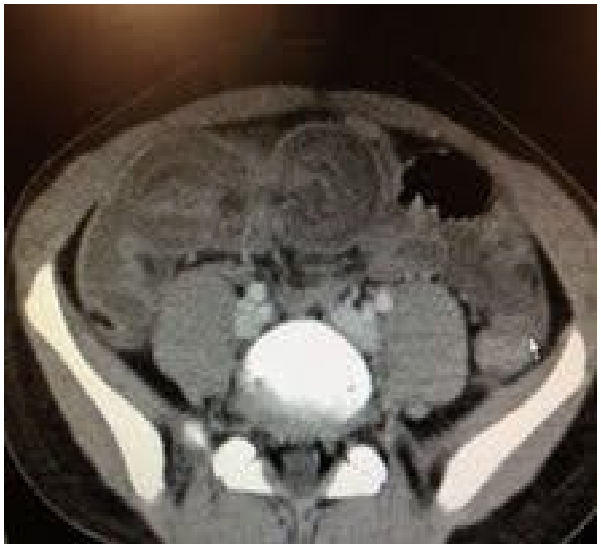

Fig 1: CT abdomen and pelvis with contrast

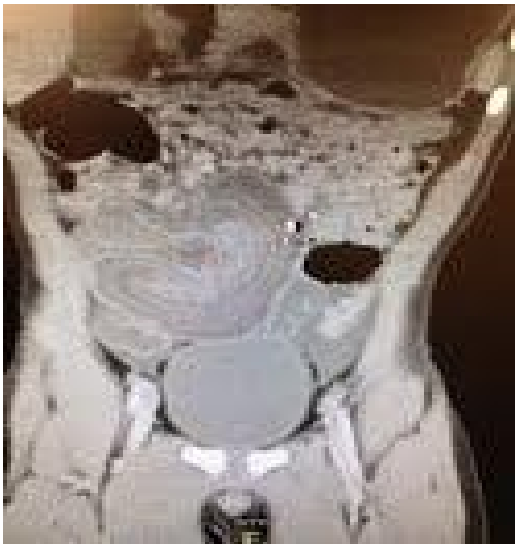

Fig 2: CT abdomen and pelvis with contrast

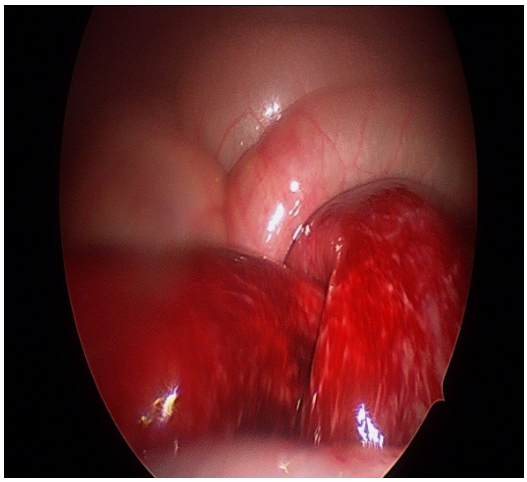

Fig 3: Diagnostic laparoscopy; Affected segment of small bowel was edematous, pink and viable.

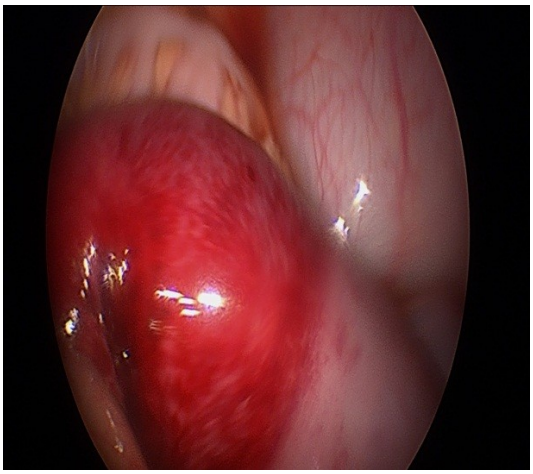

Fig 4: Laparoscopic reduction of the ileoileal intussusception

DISCUSSION

HSP has gained wide interest among pediatric surgeons due to its association with surgical diseases. Most of the patients with HSP who have GI symptoms are treated nonoperatively[3]; however the rate of laparotomy due to life threatening complications ranges from 5 to 10%. The most frequent complication is intussusception, which is the main reason for laparotomy, occurring at a rate of about 3% during HSP.

The literature supports minimal delay before exploratory laparotomy in HSP patients with suspected intussusception, regardless of diagnostic uncertainty[4]. Hydrostatic reduction with contrast enema is indicated for ileocolic intussusception[5] at early stage. Prompt surgical exploration is advised for ileoileal intussusception with obstruction, unsuccessful contrast enema reduction, or if a pathological lead point is suspected specially in older children and young adults. In contrast, intussusception without HSP is a disease of infancy, with 60% of cases occurring in the first two years of life and mostly without any pathological lead point.

CONCLUSION

Laparoscopic reduction is a viable option for patients with HSP complicated by intussusception. Laparoscopic approaches especially for early stages can decrease postoperative morbidity and hospital stay. We believe multicenter randomized studies with be beneficial for this specialized condition.

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