CASE REPORT

TEENAGE JEJUNOILEAL DIVERTICULOSIS

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Presentation of jeujunoileal diverticulosis in young age is virtually unknown. It is associated with middle or old age. It is usually asymptomatic but may present with vague abdominal pain and episodic nausea, vomiting or diarrhoea. It can lead to complications like bleeding, perforation and obstruction. We had 3 cases of jejuno-ileal diverticulosis presenting in their teens. They had resection and anastomosis resulting in improved health.

Keywords: Teenage, Jejuno-ileal, Diverticulosis

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INTRODUCTION

Jejunoileal diverticula are rare. They constitute about 0.1% of all gastrointestinal diverticula.[1] The incidence in post-mortem studies has been reported to be up to 2.3%.[2,3] In contrast to congenital Meckel's diverticulum, these are acquired and labelled as false diverticula because they lack all layers of gut wall. These are out-pouching of intestinal mucosa (pulsion diverticula) along the mesenteric border thought to be caused by intestinal dyskinesia[4] or weakness of the intestinal smooth muscle[5]. Females are affected more frequently than males.[1] Out of all cases of jejunoileal diverticulosis, 80% are in jejunum alone, 15% in ileum alone and 5% in both.[6] Presentation in young age has not been reported previously. We are reporting three cases of jejunoileal diverticulosis who presented in second decade of their life.

Case-1

A 19-year-old lady presented, in 2002 at Combined Military Hospital (CMH) Karachi, with complaints of acute abdominal pain in right iliac fossa and vomiting for 3 days. Patient had no other complaint except borborygmi for past couple of years which she described as annoying. She had a similar event 2 years back when she was treated conservatively with antibiotics and intravenous fluids. Her physical examination revealed tachycardia, a low BMI and marked pallor. Abdomen was soft except for tenderness and guarding in her right iliac fossa. Bowel sounds were exaggerated.

Her haemoglobin was 8.5 gm/dl and total leukocyte count was 16,000/mm^3. Ultrasound scan of whole abdomen and pelvis, and abdominal x-ray revealed no abnormality. Diagnosed as a case of acute appendicitis, she was operated. The appendix was found to be normal therefore the small gut was examined.

Multiple diverticuli were found in jejunum and ileum along the mesenteric border. An eight inch long jejunal segment contained more than a dozen diverticuli while another six inch segment in the ileum about two feet downstream contained similar pathology. Diverticuli were of various sizes ranging 1–5 Cm in their maximum diameter. While most of the diverticuli were bulging with intestinal contents, some were empty. One of them was grossly inflamed. The whole colon and rectum was found to be normal as was the duodenum and stomach. The affected segments of the bowel were resected and end-to-end anastomoses performed. Patient was kept in ward for 1 week with serial follow up 10 days, 1 month, 3 months and 6 months after discharge. Her recovery was smooth with patient gaining weight over the subsequent months.

Case-2

A 16-year-old girl presented in CMH, Jhelum with complaint of severe abdominal pain of two days duration. She also complained of profuse vomiting. She had not passed stools since the pain started. She gave history of colicky abdominal pain off and on for past 5 years, that would subside on its own after a few hours or it would respond to home remedies. This time the pain refused to go away and the patient was brought to the hospital. The pain was not localised to any particular site. There was no history of abnormal bowel habits.

Physical examination showed a very pale and emaciated girl. Her body weight was 36 kg. Abdominal guarding was all over and bowel sounds exaggerated. Her Hb was 7.8 gm/dl. There was air in small bowel loops on x-ray. Ultrasound scan was inconclusive.

A diagnosis of acute intestinal obstruction was made with a possibility of intestinal tuberculosis. Exploratory laparotomy revealed multiple diverticuli in the small intestine located on the mesenteric border and distributed in bunches starting about 15 Cm distal to the duodeno-jejunal flexure and extending to the terminal ileum. Colon was found to be normal in its entire length. Diverticuli were of variable sizes and a closely placed group of large diverticula was found to be swollen with bowel contents, causing obstruction of the gut by impingement on its lumen. Multiple resections and anastomoses were carried out. She was kept in ward for a week and then reviewed in OPD after 1 week, 1 month, 3 months, and 6 months of discharge. Significant

findings in post-op period were weight gain and improvement in general health.

Case-3

A young girl, 13 years of age, presented at Fauji Foundation Hospital Rawalpindi with complaints of acute abdominal pain and vomiting of 5 days duration. The pain was colicky in nature and not localised to any particular region. She had one or two episodes of non-bilious vomiting daily. She had episodes of similar complaints over the past 3 years but her symptoms resolved spontaneously. On this occasion her symptoms persisted and she had not passed stools over the past 4 days. On examination, the patient was fully alert, very lean and pale. Her heart rate was 110/min and weight was 30 Kg. Abdomen was soft but had a doughy feel. Her Hb was 8.2 gm/dl; TLC was 7,500/mm^3; ultrasound and radiograph revealed no abnormality. Keeping in view the prolonged history and acute nature of her present complaints, an exploratory laparotomy was done. Diverticuli were found on the mesenteric border of a segment of small intestine about 50 Cm in length, involving the distal part of jejunum and proximal part of ileum (Figure-1,2). The diverticuli were of various sizes, ranging 1–6 Cm. The involved segment of bowel was resected and end to end anastamosis performed. Patient was kept in ward for 10 days and was discharged after removal of stitches. She was followed for 8 months after discharge and was found to be gaining weight quite rapidly.

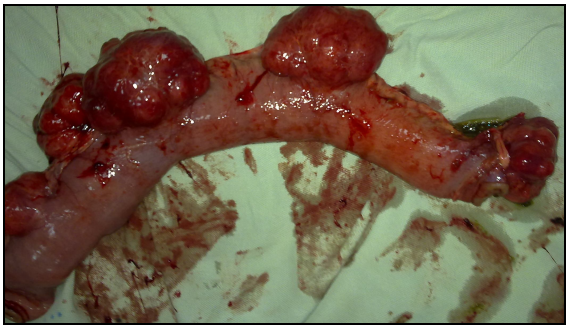

Figure-1: Resected portion of small intestines

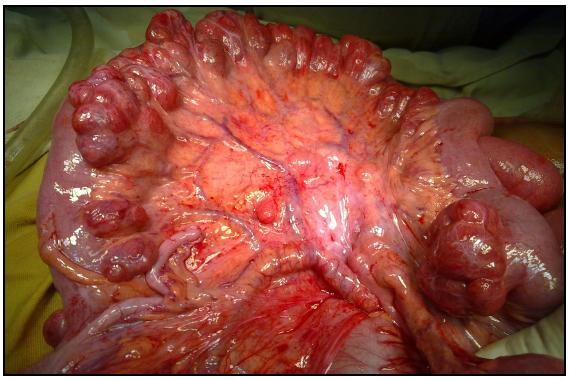

Figure-2: Gut loop showing multiple diverticuli

DISCUSSION

Jejunoileal diverticulosis is difficult to diagnose because of its rarity and non-specific clinical features. It is considered a condition that presents in old age.[7] This makes it all the more difficult to diagnose in younger patients.

Most common clinical feature, in young patients suffering from this disorder, is inability to thrive or gain weight. This is probably due to malabsorption. Other symptoms are the same as in older age including episodes of vague abdominal pain, nausea, vomiting and diarrhea.[5] Some of them present with complications like bleeding, inflammation, perforation or obstruction, making diagnosis easier.[5,7] Differential diagnosis is intestinal tuberculosis in endemic areas.

Diagnostic modality of choice for these patients is oral contrast follow through study.[7] Enteroclysis, capsule endoscopy and double-balloon enteroscopyare other alternatives.[8] Ultrasound scan, x-ray or CT scan may only be helpful in diagnosing complicated cases. Treatment in complicated cases is resection of involved segment of intestine. In uncomplicated cases, options vary from conservative management to resection of sections of gut containing diverticuli.[7] Diverticulectomy is not an option due to its high failure rate.[9] There is lack of any evidence to prove the benefit of conservative or surgical treatment in uncomplicated cases but in patients who are treated conservatively, there is a significant risk of developing complications later.[10]

It was observed that general health of the patients was poor which improved after surgery. In our opinion, the patients who present in young age, should undergo resections of involved segments of intestine with end to end anastomoses in order to ameliorate their symptoms and improve their health. It also prevents potential complications. Conservative management should be reserved for those presenting in latter part of life, those with infrequent symptoms, good general health or in whom the whole of the small intestine is involved.

CONCLUSION

Jejuno-ileal diverticulosis can present in young age and must be considered in the differential diagnosis when assessing chronic non-specific abdominal complaints. Younger patients have poor general health and are anaemic. They are best managed by surgical resection of involved segments of gut.

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