Inflammatory Fibroid Polyp of the Ileum Diagnosed on Capsule Endoscopy

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Abstract

Capsule Endoscopy is a recent diagnostic tool for detection of small bowel disease. It is the only technique that involves a visualization of the entire small bowel without sedation and may improve the ability to diagnose small bowel tumors. Although the most common indication for capsule endoscopy is obscure GI bleeding, it is infrequently performed for crampy abdominal pain, a nonspecific symptom of small bowel disease. We present here a 36-year-old woman with an ileal inflammatory fibroid polyp as a cause of recurrent of crampy abdominal pain of 4-month duration with normal conventional radiological imaging and diagnosed by wireless capsule endoscopy. Inflammatory Fibroid Polyp (IFP) is an extremely rare tumour involving the gastrointestinal tract (GI) and especially the stomach and small bowel, originating in the submucosa. Resection of the polyp bearing small intestinal segment with end-to-end anastomosis of the bowel loops was performed.

Key words: Capsule endoscopy - Inflammatory fibroid polyp - gastrointestinal bleeding

Introduction

The small intestine has been a difficult area to investigate and the radiological imaging studies like barium meal follow through and enteroclysis had been the main investigational modalities for diagnosing small intestinal disorders. These conventional imaging modalities usually have low diagnostic yield. The video capsule endoscopy, by directly visualizing the mucosa of areas not accessible by conventional endoscopy, has revolutionized the evaluation of small bowel.1 We present a case of inflammatory fibroid polyp of small intestine presenting as recurrent episodes of colicky abdominal pain with normal radiological investigations and diagnosed on capsule endoscopy.

Case report

A 36-year-old female presented to us with complaints of colicky abdominal pain of 4 months duration that was periumbilical in location, intermittent in nature, severe in intensity and aggravated by meals. There was no history of vomiting, fever and loss of weight or appetite. Her general physical as well as systemic examination was normal. She was initially evaluated in a private hospital where her investigations including hemogram, blood biochemistry, abdominal x-ray, ultrasound of the abdomen and upper gastrointestinal endoscopy were normal. The contrast enhanced computerized tomography examination of abdomen as well as barium meal follow through examination was normal. Subsequently performed ileocolonoscopy and ileal biopsy of the patient was also normal. She was being treated as chronic functional abdominal pain with no symptomatic response. Thereafter, patient was referred to our hospital for capsule endoscopy. After obtaining informed consent, capsule endoscopy (Pillcam SB, Given Imaging Ltd, Israel) was performed after overnight fasting and preparation with 2 L of polyethylene glycol solution. Analysis of capsule endoscopy images revealed presence of a polypoidal lesion (Figure 1) 3 hours and 30 minutes after ingestion of the capsule suggestive of location in the distal ileum. The polypoidal lesion had superficial ulcerations and appeared pedunculated.

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Exploratory laparatomy was performed and a 2 cm polyp was noted in the distal ileum. Resection of the polyp bearing small intestinal segment with end-to-end anastomosis of the bowel loops was carried out. Histopathological examination of the polyp revealed tumor localized to submucosa with normal overlying villi (Figure 2, H&E X20). At higher magnification, tumor was composed of proliferating capillaries, myofibroblasts and eosinophils (Fig 3, H&E X 40l). These features are suggestive of an inflammatory fibroid polyp. The patient had complete clinical recovery and is asymptomatic after 10 months of follow up.

Discussion

Inflammatory fibroid polyp (IFP) is rare, benign tumor of the gastrointestinal tract arising from the submucosa. Vanek first described this tumor in 1949 as a “granuloma with eosinophilia.” It occurs in all the age groups but the peak prevalence is found between 6th and 7th decades of life. The underlying cause of Inflammatory fibroid polyps is still unknown. Many have suggested etiologies possibly related to chemical, physical, or metabolic triggers. It occurs most frequently in the stomach (antrum) followed by the small bowel and rarely in the esophagus and large bowel. The diagnosis is based on histological investigation. Macroscopically, it can be seen as a non-encapsulated pedunculated or sessile polypoidal lesion varying from 2 to 5 cm in size, which may ulcerate. Rarely, larger lesions have also been described. Microscopically, it is composed of a fibrous and edematous stroma containing variable-sized blood vessels and a diffuse inflammatory infiltrate particularly eosinophils. Clinical symptoms depend on size, location, or complications of the tumor. IFPs developing within the small bowel most frequently present with obstruction or intussusception. The radiological investigations may help in identifying the intussusception and contrast studies may demonstrate the polypoidal lesions, the final diagnosis is made on histological examination. In our case, all the radiological investigations were normal and capsule endoscopy helped in diagnosing the inflammatory fibroid polyp of the ileum. Treatment usually involves surgical resection and the recurrence has been very rarely reported. Case reports describing endoscopic resection of inflammatory fibroid polyps has also been reported. Most of these case have described endoscopic resection of esophagogastroduodenal and colonic inflammatory fibroid polyps but with the advent of single/double/spiral enteroscopy, endoscopic resection of small bowel polyps is also possible. The present case reiterates that capsule endoscopy may help in establishing diagnosis in patients with colicky abdominal pain and negative endoscopic and radiological investigations.
References


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