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Intussusception due to Inflammatory Fibroid Polyp of the Ileum. A Report of Two Cases from Türkiye

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ABSTRACT

Intussusception due to inflammatory fibroid polyps is a very rare entity. In this article two cases of inflammatory fibroid polyps of the ileum (A 32-year old man and a 50-year old woman) in Türkiye are described. Both patients were admitted to the hospital because of acute intestinal obstruction as a result of an intussusception caused by a polyp.

The lesions were characterized by an eozinophil containing loosely structured fibrous tissue comprising an onion-skin like arrangement of reticular fibers with spindle-shaped nuclei localised in the submucosa and the base of the mucosa, and variable proliferation of fibroblasts and small vessels.

The aetiology of these polyps remains obscure but they appear to be a reactive process (allergic or foreign body reaction) rather than neoplastic. Nkanze et al reported 12 cases of intussusception due to fibroid polyps in Africa. Our two cases are the first cases in Türkiye.

***Key words**: Inflammatory fibroid polyp of the ileum, Benign fibrohistiocytic tumors*

CASE REPORT 1

The first patient was a 32-year old man who was admitted to the emergency service on the 25th of December 1981 with severe abdominal pain and bilious vomiting.

His history revealed that he was a taxi driver. He had been suffering from epigastric pain resembling peptic ulcer disease for three years. He used antacids and anticholinergic drugs. The severe abdominal pain started three hours before his admission to the hospital and gradually increased.

Physical examination: The patient appeared to be emaciated. No rash or Iymphadenopathy was found. The head, neck, lungs, and heart were normal. The temperature was 36.8°C, the blood pressure was 120/70 mm Hg, the pulse was 90, respirations were 20. Abdominal examination revealed hyperperistaltic bowel sounds. The rebound tenderness was positive.

Laboratory, Findings: Hemoglobin was 9g/dl, white-cell count was 16000/mm^3, the urine analysis was normal. X-ray films of the abdomen disclosed a large stomach distended with air (Fig. 1).

Via a supraumblical midline incision the abdomen was explored. The stomach, duodenum and liver were normal. An ileo ileal intussusception was found. The cause of the intussusception was a tumoral mass 5×5×3 cm in the ileum 55 cm proximal to the ileocecal valve (Fig. 2). The invagination was reduced arising from the bowel wall and protruding into the lumen. Ileal resection was performed including 5 cm proximal and distal parts of this tumoral mass. The bowel continuity was completed with end-to-end ileo ileal anastomosis. No other abnormality was found in the gastrointestinal tract.

The microscopic examination showed a tumor consisting of loose fibrous connective tissue arising from the submucosa and protruding into the lumen of the ileum. It was covered by the intestinal mucosa, fibrin and exudate. The surrounding submucosa and the lamina propria showed some increase of the number of Iymphocytes, plasma cells and proliferating fibrovascular tissue (Fig. 3). The vessels were usually thin-walled and varied from small capillary size to large dilated ones. The loose fibrous stroma consisted of stellate cells and scanty small vessels (Fig. 4).

The patient's recovery was uncomplicated. He

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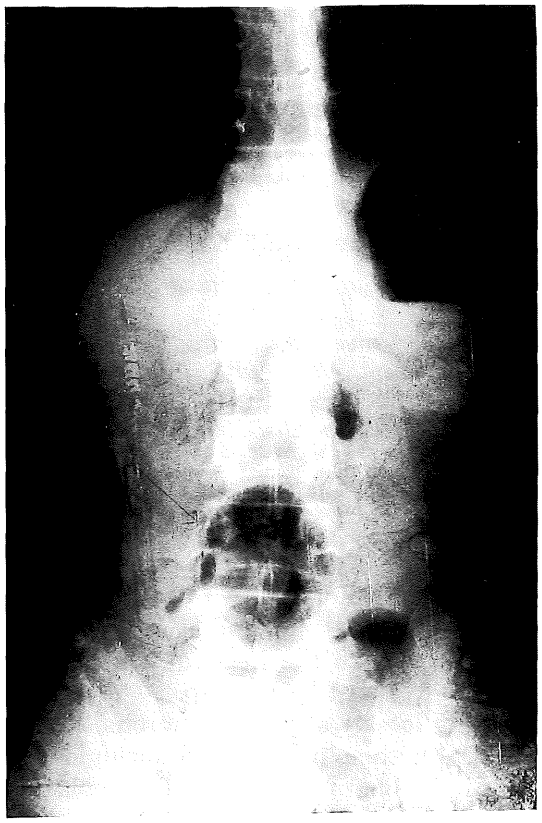

Fig. 1. Abdominal X-ray of the first case. It shows a distended bowel.

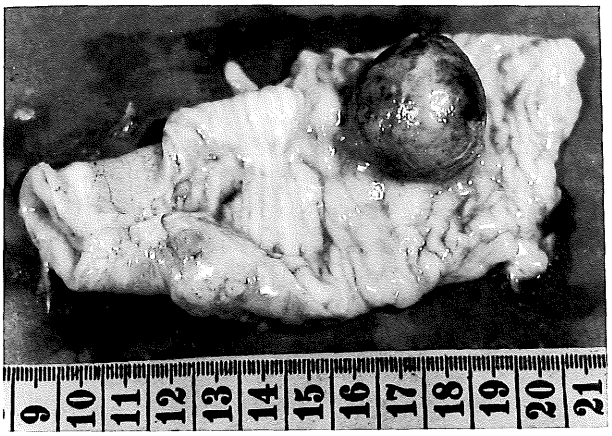

Fig. 2. Pear-shaped polypoid lesion of ileum.

was discharged 8 days after the surgical intervention.

CASE REPORT 2

A 50-year old woman was admitted to the emergency service on the 5th of March 1983 with a crampy type of abdominal pain, intermittent vomiting and inability to defecate. She hed been well until ten days earlier when she experienced the onset of crampy abdominal pain accompanied by nausa and intermittent vomiting.

Physical examination: The blood pressure was 130/80 mmHg, the pulse 88, the temperature

Fig. 3. Cellular stroma with proliferating vessels. (He ×6.3)

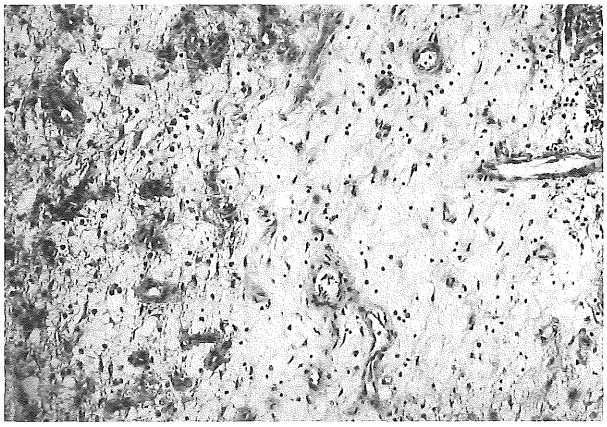

Fig. 4. Loose fibrous stroma with stellate cells and scanty vessels.

was 36.5°C. The general appearance was fair. The abdomen was asymmetric in appearance and was distended. All quadrants of the abdomen were tender. The rebound tenderness was also positive. The rectum was empty on digital examination.

Laboratory findings: The hemoglobin was 7.5g/dl, white blood cell count was 10000/mm^3, the urine was normal, BUN was 189mg/dl, and the levels of K^+, $C1^-$, Na^+ in blood were 3.9, 99, 135mEq/L respectively. X-ray films of the abdomen disclosed multiple distended bowel segments with air fluid levels in the ileum (Fig. 5).

On the same day as admission the patient was operated on. A supra-infraumblical incision was performed. The jejunum and ileum were distended. There was an ileal torsion and ileo ileal intussusception 50 cm proximal to the ileocecal valve because of a tumoral mass of 3 cm in diameter. The torsioned ileum was detorsinoned and the intussusception was reduced by hand. An ileal resection was performed including 5 cm proximal and distal parts of the polyp. The anastomosis was completed in end-to-end form.

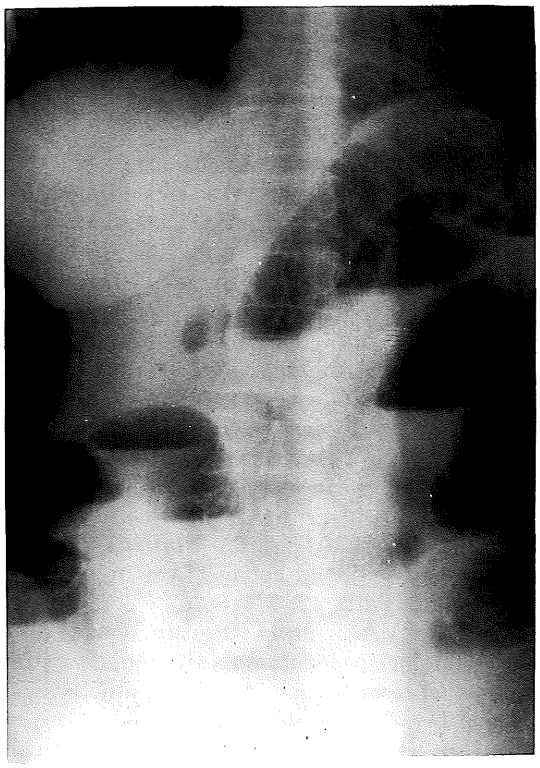

Fig. 5. Abdominal X-ray of the second patient. It shows gas-fluid levels in the bowels.

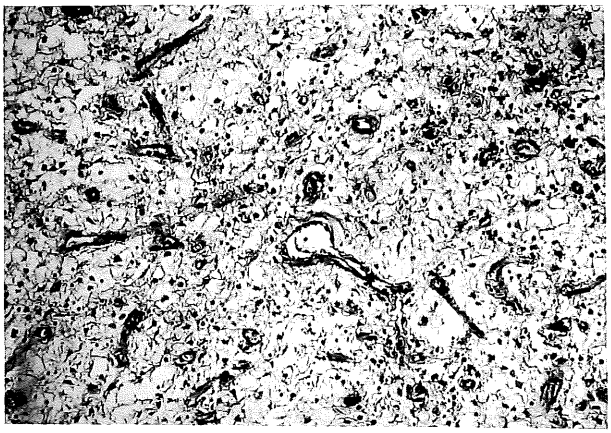

Fig. 6. Loose and cellular stroma with proliferating vessels (Van Gieson ×10) (case II).

Microscopic examination with light microscope: Structural and cytological features of the lesions were similar to case 1. The vascular network was prominent. Most of the vessels had the features of capilleries but channels medium to large in size were also present at the base of the polyp. They consisted of moderately cellular mesanchymal proliferation loosely distributed in a wide myxoid extracellular space (Fig. 6). The polyp showed large dilated but thin-walled vascular channels (Fig. 7). The main cell type consisted of spindle shape and stellate elements. The nuclei were oval or spindle shaped (Fig. 8).

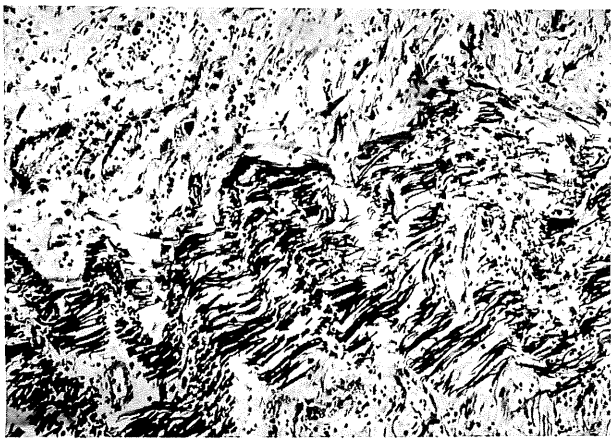

Fig. 7. Base of polyp with proliferating fibrovascular tissue separating and destroying the muscle coat of the ileum (Case II).

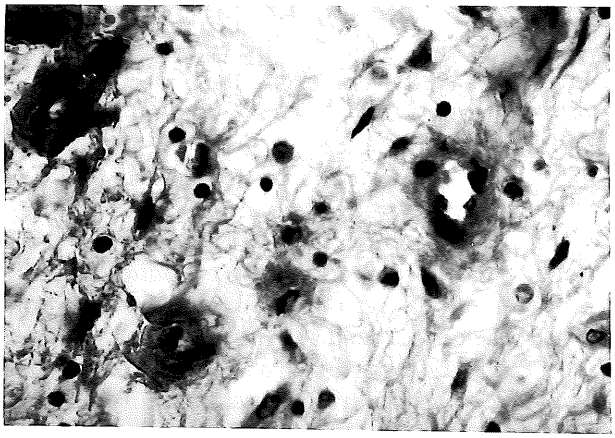

Fig. 8. Loose fibrous stroma with satellite cells and scanty small vessels (HE ×40) (Case II).

The patient was discharged with a complete recovery 10 days after the operation.

DISCUSSION

The occurrence of intussusception of the ileum varies from country to country. Nkanze et al.[11] noted that an important cause of small bower obstructions was fibroid polyps of the ileum in that part of Africa.

The Inflammatory fibroid polyp (IFP) is a localized growth of the submucosal connective tissue of the gastrointestinal tract (GI). Vanek[17] described IFP as "gastric submucosal granuloma with eosinophilic infiltrations." It has been reported in the esophagus[7], stomach, small and large bowel[1–4,6,8,9,13,14]. Up to date there have been no other reported cases in Türkiye. These are the first reported cases in our country. IFP are uncommon lesions. Up to date there are no more than 250 reported cases in the literature [5,10,13,14,18].

IFP arises as a solitary lesion[10] and it is most common in the stomach (70%). Stolte and Finken-

zeller[14] recently reported 143 patients with IFP of the stomach among 3200 polyps of the stomach. The polyp was located in the antrum in 72% of the cases. They observed that after removal of the IFP of the stomach, these lesions never recurred, and suggested that the lesion is a reactive process (allergic or foreign body reaction).

Clinically these lesions imitate a gastrointestinal neoplasm, frequently leading to intussusception[11] as in our cases. A clear-cut distinction was not observed between IFP and eosinophilic gastroenteritis in some studies[17].

The etiopathogenesis of the IFP is still obscure. Trauma, bacterial, physical, chemical and even metabolic stimuli have been suggested as initiators of the lesion[3]. Nutritional habits may be initiatory factors. Türkiye is a developing country and the nutritional behavior of the majority of the population quite similar to that of African people.

The lesion is sometimes interpreted as a reactive process, and sometimes as a neoplasia. Vanek[17] concluded that the lesion was "submucosal granuloma of the stomach with eosinophlic infiltration" which is a reactive process.

The characteristic histological feature of these lesions is an eosinophil-containing loosely structural fibrous tissue comprising an onion-skin-like arrangement of reticular fibers with spindle-shaped nuclei localized in the submucosa and the base of the mucosa. Otherwise they consisted of a moderately cellular mesenchimal proliferation distributed loosely in a wide myxoid extracellular space in which there were a moderate number of connective tissue fibers with a prominent vascular network. Recent immunohistochemical and electronmicroscopic studies have suggested that IFP of the gastrointestinal tract represents a reactive lesion of a fibroblastic nature[13,15,16,18]. As a result of these studies the IFP may represent a proliferation of gastrointestinal submucosal stromal cells.

Finally, we present two new cases of IFP in Türkiye which caused intussusception in the ileum.

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