Diffuse Intestinal Lipomatosis presenting as Intussusceptions: A Case Report

Deepti Agarwal[1], Meenu Gilotra[2], Kanika Makkar[3], Saurabh Juneja[4]

ABSTRACT

Introduction: Gastrointestinal tract is a uncommon site for lipomas. Intestinal lipomas are most common benign non-epithelial intestinal tumors, found incidentally. Symptomatic diffuse submucosal intestinal lipomatosis is a rare entity. Here, we present a rare case of intestinal submucosal lipomatosis, which presented as intestinal obstruction.

Case report: On laparotomy, intussusception of a segment of gut was identified and sent for histopathological examination. On gross examination, intussusception of a part of gut segment with distally gangrenous gut segment was identified. On cutting open, multiple soft, yellowish polypoidal growths identified. On histopathology, multiple submucosal lipomas were identified.

Conclusion: Diffuse intestinal lipomatosis is a rare condition and can lead to intestinal obstruction and should be kept as a differential diagnosis in a case of intussusceptions.

Keywords: Submucosal Lipomas, Diffuse Intestinal Lipomatosis, Intussusception.

INTRODUCTION

Gastrointestinal tract is uncommon location for lipomas. If present, they are seen submucosally in 90% of the cases and subserosally in 10% of the cases.[1,2] Mostly GI lipomas are small in size and detected incidentally during endoscopic examination.[3] Lipomatous lesions of the colon may be solitary or multiple, diffuse or encapsulated lipomas and are second most common benign tumors of the colon, rarely encountered in clinical practice.[4,5] Larger lesions become lobulated or pedunculated and contain mature adipose tissue.[6] Common locations for GI lipomas are esophagus, stomach, small intestine and colon.[7] The vast majority of cases with intestinal lipomatosis are usually asymptomatic. However, some of the cases present with intermittent obstruction, colonic perforation and rarely intussusceptions.[8] Intussusceptions can be due to benign, malignant or idiopathic causes.[9] The age of presentation for intussusceptions is highly variable.[10] Intussusceptions in the ileocolic region are common in children and uncommon in adults.[11]

CASE REPORT

A 42 years old female presented with pain abdomen, sudden in onset, associated with nausea and vomiting. There was no previous history of any chronic abdominal disease. Patient was evaluated and subjected to computed tomography scan of abdomen which revealed wall thickening in small and large bowel with extensive fat deposition within the walls. There was telescoping of terminal ileum into caecum and ascending colon with bowel within bowel configuration. Possibility of ileocolic intussusceptions was kept.

Patient was admitted in our institute and right hemicolectomy with resection of ileum and colon was performed.

On gross examination of the resected segment of gut, an intussuscepted segment of gut measuring 15 cm in length was identified with distended proximal part and gangrenous distal part. On cutting open, the mucosal surface showed multiple pedunculated grayish yellow polypoidal growths varying in size from 0.5 to 4.5 cm. The cut surface was yellowish and homogenous (figure-1a,b).

Microscopy

Multiple sections examined from terminal ileum, caecum and ascending colon showed diffuse expansion of submucosa by lobules of mature adipose tissue, with focal superficial denudation of mucosal epithelium in intussuscepted part of gut, transmural acute inflammatory infiltrate, edema, congestion and areas of necrosis (figure-2).

DISCUSSION

The incidence of intestinal lipomas is higher in older person, slightly more frequent in females.[12] Most patients with intestinal lipomatosis are asymptomatic. However, they rarely present with surgical emergencies such as intussusceptions and obstruction.[8] Preoperative diagnosis of intestinal lipomas may be difficult as the symptoms can be intermittent and long standing.[13] In 90% of cases, these are localized in submucosa but occasionally they extend into muscularis propria, while upto 10% are subserosal.[14] The etiology of lipomatosis is yet to be established. Hypothetical etiological factors include embryogenic displacement of adipose tissue, degenerative disease with disturbance of fat

[1]Associate Professor, Department of Pathology, BPS GMC for Women, Khanpur Kalan, Sonepat, [2]Demonstrator, Department of Pathology, BPS GMC for Women, Khanpur Kalan, Sonepat, [3]Postgraduate student, Department of Pathology, BPS GMC for Women, Khanpur Kalan, Sonepat, [4]Postgraduate student, Department of Pathology, BPS GMC for Women, Khanpur Kalan, Sonepat, India

Corresponding author: Dr. Meenu Gilotra, Department of Pathology, Bhagat Phool Singh Government Medical College for Women, Khanpur Kalan, Sonepat, India

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Figure-1: (a): Gross pathology revealed submucosal lipomas, intussusception and gangrenous gut distal to intussusception. (b): Axial computed tomography(CT) scan showing intussusception.

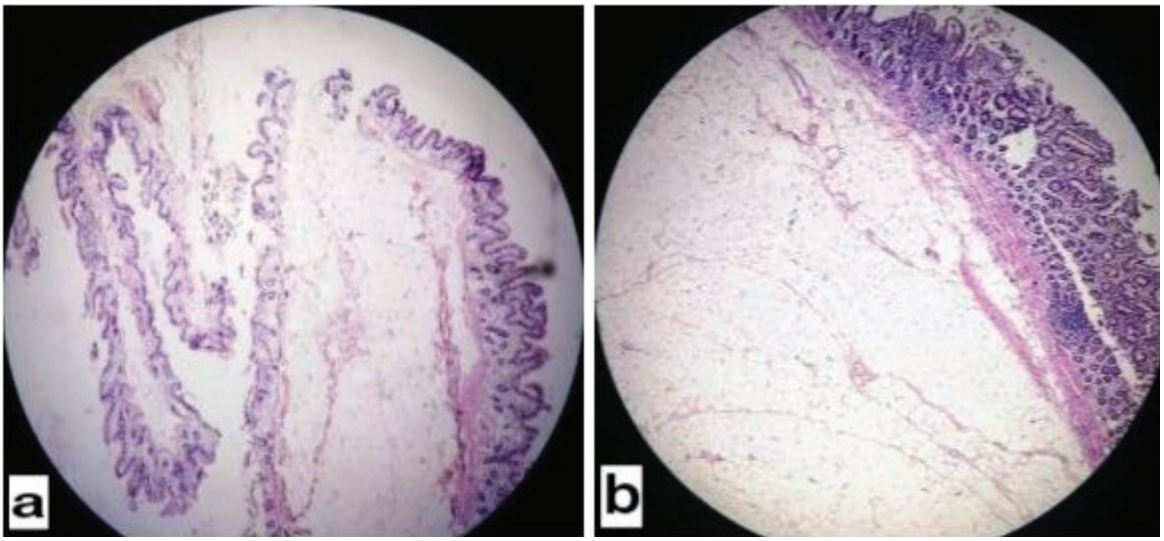

Figure-2: (a): Sections show a polypoidal outgrowth lined by intestinal mucosa and lobules of mature adipocytes immediately beneath the mucosa. (H&E, 40X) (b) Replacement of submucosa by adipose tissue.(H&E, 200X)

metabolism, post chemotherapy fat deposition and chronic irritation.[15]

Asymptomatic lipomas need no treatment. The size of lipoma is a predictor of symptomatology and lipomas larger than 4 cm produce symptoms.[16]

CONCLUSION

Intussusception in adults is rare and is usually caused by an underlying tumor, mostly malignant cause. Diffuse colonic lipomatosis is a rare entity and it frequently mimic malignancy. In our case, multiple submucosal lipomas was the cause for intussusceptions.

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