

Diffuse Intestinal Lipomatosis presenting as Intussusceptions: A Case Report

Deepti Agarwal¹, Meenu Gilotra², Kanika Makkar³, Saurabh Juneja⁴

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.

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

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.

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

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

How to cite this article: Deepti Agarwal, Meenu Gilotra, Kanika Makkar, Saurabh Juneja. Diffuse intestinal lipomatosis presenting as intussusceptions: a case report. International Journal of Contemporary Medical Research 2019;6(9):117-119.

DOI: <http://dx.doi.org/10.21276/ijcmr.2019.6.9.29>

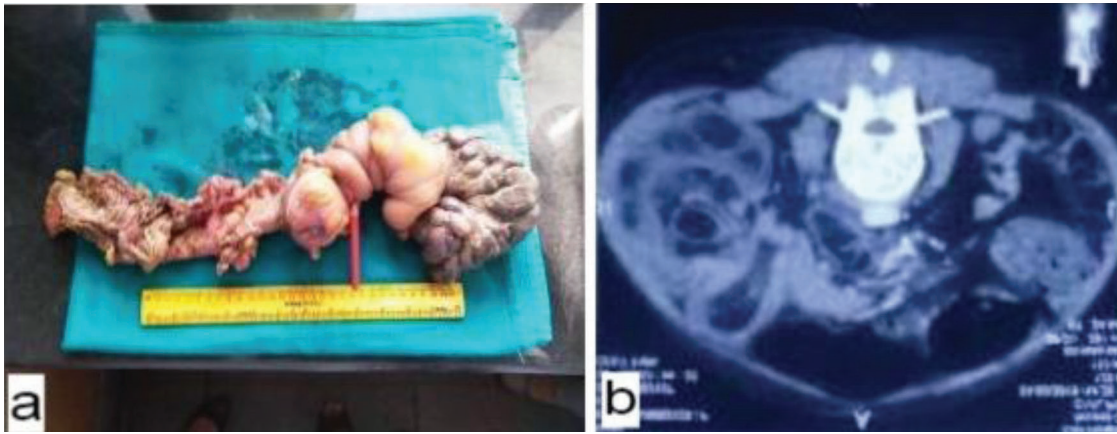


Figure-1: (a): Gross pathology revealed submucosal lipomas, intussusception and gangrenous gut distal to intussusception. (b): Axial computed tomography(CT) scan showing intussusception.

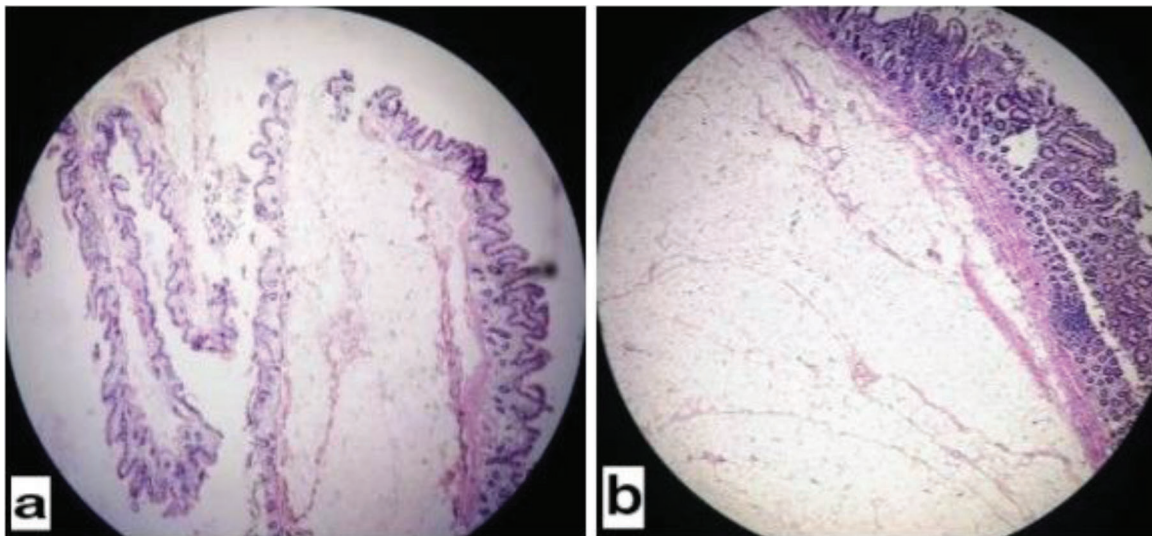


Figure-2: (a): Sections show a polypoid outgrowth lined by intestinal mucosa and lobules of mature adipocytes immediately beneath the mucosa. (H&E, 40X) (b) Replacement of submucosa by adipose tissue.(H&E, 200X)

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.

REFERENCES

1. Ponsaing LG, Kiss K, Hansen MB. Classification of submucosal tumors in the gastrointestinal tract. *World J Gastroenterol.* 2007;13:3311-15.
2. Ghidirim G, Mishin I, Gutsu E, et al. Giant submucosal lipoma of the cecum: Report of a case and review of literature. *Romanian J Gastroenterol.* 2005;14:393-96.
3. Day, D. W., Jass, J. R., Price, A. B., Shepherd, N. A., Sloan, J. M., Talbot, I. C., Warren, B. F. and Williams, G. T. Non-Epithelial Tumours of the Large Intestine (Chapter 39), in *Morson and Dawson's Gastrointestinal Pathology*, 4th Edition. USA: Blackwell Science Ltd; 2008.
4. Catania G, Petralia GA, Migliore M et al. Diffuse colonic lipomatosis with giant hypertrophy of the epiploic appendices and diverticulosis of the colon. Report of a case and review of the literature. *Dis Colon Rectum.* 1995;38:769-775.
5. Yatto RP. Colonic lipomatosis. *Am J Gastroenterol.* 1982;77:436-437.
6. Fenoglio-Preiser CM, Noffsinger AE, Stemmermann GN, Lantz PE and Isaacson PG, *Mesenchymal Tumors (Chapter 19)*, in *Gastrointestinal Pathology: An atlas and text*, 2nd Edition. UK: Lippincott Williams and Wilkins; 1997.
7. Turi S, Rockelein G, Dobroschke J, Wiedmann KH. Lipoma of the small bowel. *Z Gastroenterol.* 2004;42:147-51.
8. Synder C, Cannon JA: Diffuse intestinal lipomatosis presenting as adult intussusception. *World J Colorectal Surg.* 2013;3:14.
9. Reijnen HA, Joosten HJ, de Boer HH: Diagnosis and treatment of adult intussusception. *Am J Surg.* 1989, 158:25-28.
10. Suárez Moreno RM, Hernández Ramírez DA, Madrazo

- Navarro M, Salazar Lozano CR, Martínez Gen R: Multiple intestinal lipomatosis. Case report (Article in English, Spanish). *Cir Cir.* 2010;78:163-65.
11. Bodas A, Rivilla F, Maluenda C: Intestinal lipomatosis in a 10-year-old girl. *Eur J Pediatr.* 2008;167:601-602.
 12. Boyce S, Khor YP. A colonic submucosal lipoma presenting with recurrent intestinal obstruction attacks. *Case Reports* 2009;2009:bcr1120081199.
 13. Yalamarthi S, Smith RC: Adult intussusception: case reports and review of literature. *Postgrad Med J.* 2005, 81:174-77.
 14. Vasiliadis K, Katsamakas M, Nikolaidou A, et al. Submucosal lipoma of the ascending colon as a source of massive lower gastrointestinal bleeding: a case report. *Acta Chir Belg.* 2008;108:356-9.
 15. Jeong IH, Maeng YH. Gastric lipomatosis. *J Gastric Cancer* 2010;10:254-8.
 16. Paskauskas S, Latkauskas T, Valeikaite G et al. Colonic intussusception caused by colonic lipoma: a case report. *Medicina (Kaunas).* 2010;46:477-81.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 01-08-2019; **Accepted:** 30-08-2019; **Published:** 26-09-2019