DIFFUSE ILEAL LIPOMATOSIS WITH MEGA-ILEUM AND ULCERATIVE COLITIS: A CASE REPORT

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ABSTRACT

Diffuse ileal lipomatosis is an extremely rare idiopathic pathology. It mostly presents with one of its complication like intussusception leading to bowel obstruction, volvulus and GI bleeding. Here we present a case of 38-year male, who was known case of ulcerative colitis presenting with chronic constipation. Patient was sent for CT scan which showed diffuse fat infiltration in the walls of ileum suggestive of diffuse lipomatosis of ileum and it was associated with significantly large calibre of ileum giving a mega-ileum appearance.

Keywords: Diffuse ileal lipomatosis, Mega-ileum, Ulcerative colitis

Introduction

Diffuse ileal lipomatosis is proliferation of normal fat in the wall of the small bowel, in contrast to neoplastic proliferation.[1] It is a rare condition with most common presentation being that with one of its complications namely intussusception, ulceration or volvulus.[2,3] The cases reported so far in literature, mostly presents with intussusception and bowel obstruction.[3] Few cases have also been reported with carcinoma of colon.[4] Here is a case of diffuse ileal lipomatosis with mega-ileum in a patient with known diagnosis of ulcerative colitis.

Case Report

We present a case of a 38 year old male who presented with abdominal pain and loose motions for the last 10 years. He had appendectomy 8 years ago followed by treatment for intestinal tuberculosis for 14 months. He is a known case of ulcerative colitis for the last 5 years, diagnosed on colonoscopic biopsy and was put on salicylates. He stopped the medication and developed constipation for the last 1 year.

He had post oral and intravenous CT abdomen and pelvis at our department which showed diffuse submucosal lipomatosis involving the entire ileum. The jejunal loop were normal in appearance and calibre and were located in the left upper quadrant. The ileal loops were significantly dilated and occupied the entire abdomen with extensive diffuse fatty infiltration in its wall. The maximum caliber of the ileum was 7 cm in the region of pelvis. Multiple small lipoma were present in the distal jejunal loops. The small distal segment of the ileum was spared and ileocecal junction was collapsed. Cecum and entire large bowel was collapsed. There was associated peritoneal lipomatosis.

There was an incidental finding of a large infiltrative and nodular lesion in the anterior mediastinum and adjacent subcutaneous tissue of the anterior chest wall with multiple tiny calcifications/phleboliths within the lesion, suggestive of a hemangioma.

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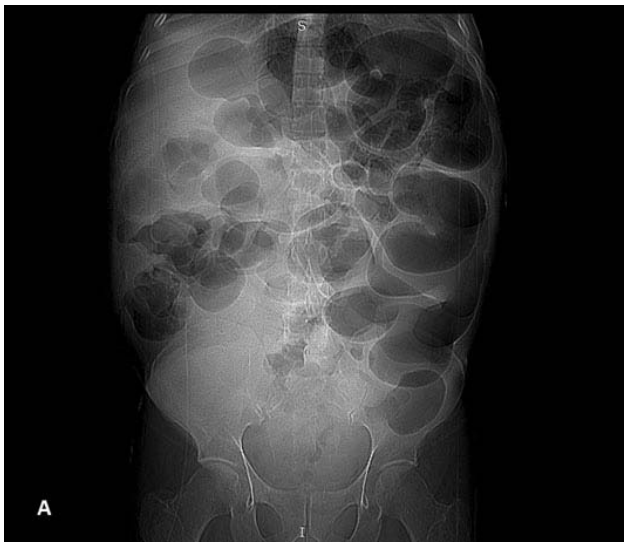

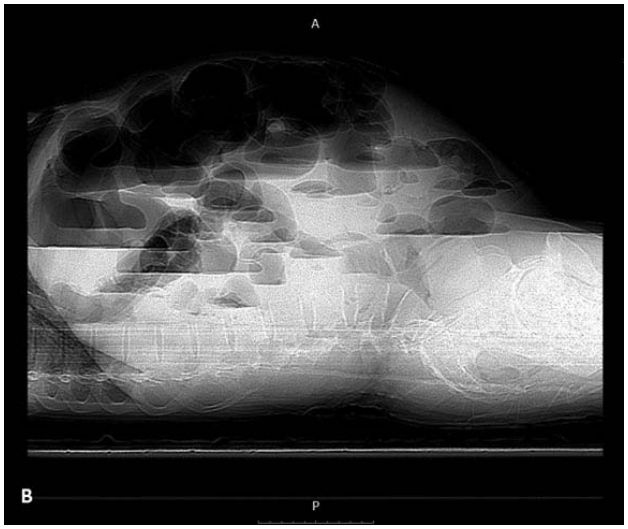

Figure 1A and B: Radiographs abdomen AP and lateral view reveals dilated small bowel loops.

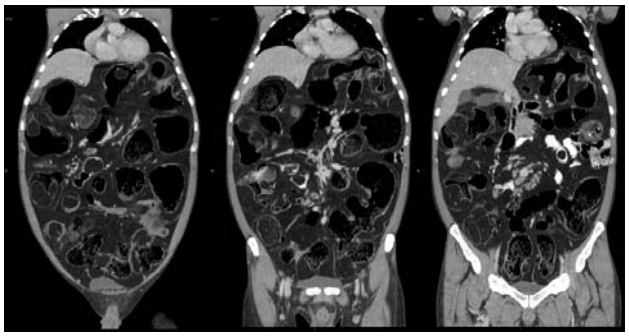

Figure 2: Coronal CECT post contrast scan of abdomen and pelvis reveal dilated small bowel loops with diffuse ileal lipomatosis.

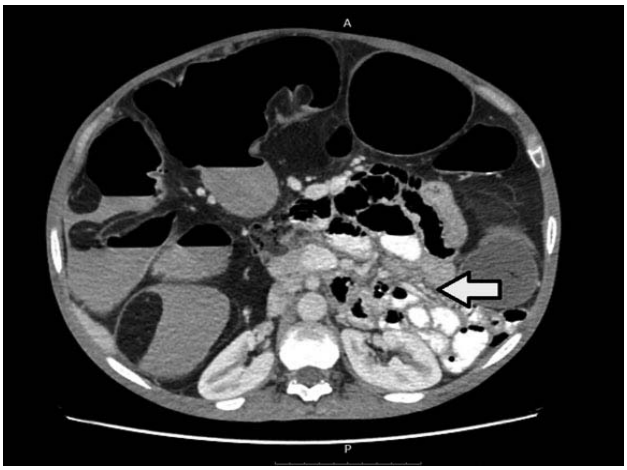

Figure 3: Axial CECT post contrast scan reveal of abdomen and pelvis reveal dilated small bowel loops with diffuse ileal lipomatosis. The normal calibre jejunal loops are seen in the left upper quadrent.

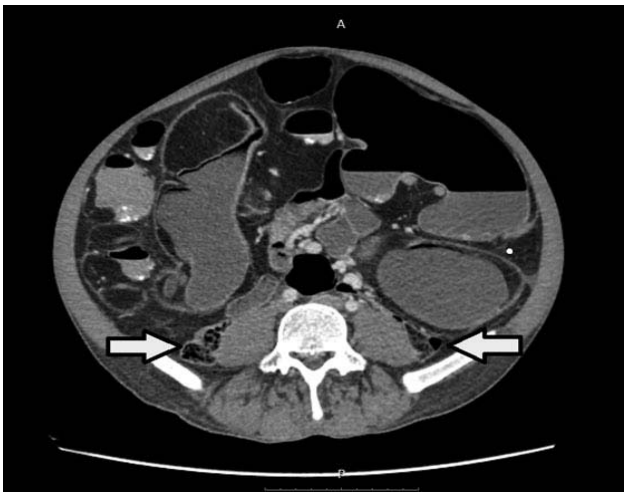

Figure 4: Axial CECT post contrast scan reveal of abdomen and pelvis reveal dilated small bowel loops with diffuse ileal lipomatosis. The ascending and descending colon is seen in collapsed in the retroperitoneum.

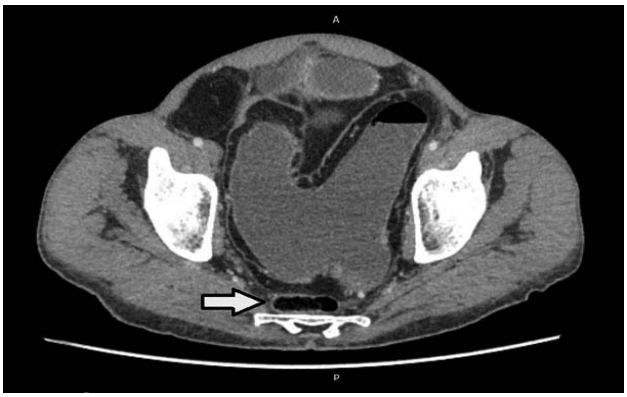

Figure 5: Axial CECT post contrast scan reveal of abdomen and pelvis reveal dilated ileal loops with diffuse ileal lipomatosis in the pelvis and compressed posteriorly displaced rectum.

Discussion

The term ileal lipomatosis was first described in 1906 by Hellstrom.[1] Intestinal lipomas are usually solitary, however numerous well circumscribed intestinal lipomas can occur.[1] It may involve any part of small bowel, with ilieum being the most common site.[2] It usually present after 4th decade of life, with average age distribution ranging from 20 to 88 years, with no specific gender prediction observed. Some familial pattern of inheritance has also been reported.[2] Histopathologically, it is characterized by submucosal proliferation of adipose tissues, which may or may not extend to serosal surface or mesentry.[1]

It can be associated with multiple systemic lipomatosis, which is a rare disorder characterized by generalized accumulation of non-encapsulated fat in body including soft tissues.[3] Two different entities have been described in this context one is diffuse abdominal lipomatosis, in which non-capsulated adipose tissues accumulate and the other is intestinal lipomatosis in which encapsulated lipomas accumulate, most commonly in large bowel, followed by small bowel, stomach and esophagus. These two conditions can also coexist.[3]

Lipomas are the second common benign tumors of the small bowel after leiomyomas. CT is capable of differentiating lipomas from liposarcomas depicting the inhomogeneity and increase in the density of fat in the lesion.[4] Sarcomatous change in these small bowel lipomas have never been described in literature.[5] CT is the modality of choice to diagnosed these fat density lesions. Once diagnosed on CT no more invasive investigation is required. On CT we can easily measure the density of these homogenous fatty lesions.[2]

The exact etiology of fat deposition in the walls of the small bowel is unknown. Possible theories found in the literature include embryological deposition of fat, hamartomatous syndromes, post-chemotherapeutic change and chronic irritation of the bowel such as inflammatory bowel disease.[6] Four distinct forms of abnormal deposits of mature fat in the small intestine have been described in literature: 1) single discrete tumor (lipoma), 2) multiple separate tumors (multiple lipomas), 3) diffuse, frequently confluent encapsulated nodules of fat and 4) unencapsulated fat infiltration of submucosa without tumor like nodules.[7,8]

Multiple associated findings have been presented in the literature. Yakabe et al have described a case of diffuse nodular lipomatosis and diverticulosis of small bowel.[9] Thakur et al have presented a similar case with epidermal inclusion cyst in the cecum. There are two case reports of small bowel lipomatosis associated with carcinoma of the large bowel.[2,7] Wu et al have described a rare association of small bowel lipomatosis with macrodactylia fibrolipomatosis.[10] There is only one case report documented in which diffuse ileal lipomatosis is associated with mega-ileum.[11] Our patient is the second case with known history of ulcerative colitis.

There are no specific surgical treatment options available for diffue ileal lipomatosis if the patient is asymptomatic. Patients are usually given symptomatic relief with medication. Surgical resection is not a good option for extensive ileal lipomatosis since the patient will end up having short bowel syndrome.[12] Complications of this condition include intussusception, small bowel obstruction, volvulus and GI bleeding.[1,2,3,13, 6,5] Surgical treatment is only option for cases presenting with mechanical obstruction such as intussusception and volvulus.

Conclusion

Diffuse ileal lipomatosis is an exceedingly rare entity having diffuse fat deposition in the wall of the ileum. Asymptomatic dilated small bowel loops on an abdominal radiograph should raise the concern for mega-ileum with diffuse ileal lipomatosis. CT can be helpful in measuring the density of these lipomatous lesions in the walls of the small bowel and it is the easy, preferred and accurate modality for this condition. The case discussed here is rare association of diffuse ileal lipomatosis with mega-ileum and ulcerative colitis.

Conflict of Interest: The authors of this study reported no conflict of interest.

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