Lipoma of the transverse colon presenting as simple intestinal obstruction: A Case Report

[1]Abiodun-Wright W, [2]Keshinro S, [1]Olumide Folabi
[1]Heals Specialist Clinic, Isolo, Lagos
[2] Mecure Healthcare, Oshodi, Lagos

Correspondence to:
Dr Wole Abiodun-Wright
Box 54456, Ikoyi Lagos. Nigeria.
wole.wright@healsclinic.com

Summary

Lipomas of the Colon are uncommon. This is the report of a case of sub mucosal lipoma of the transverse colon in a 43 year old Nigerian woman. The clinical presentation was that of a sub acute intestinal obstruction. She had laparotomy and limited colonic resection with no post operative complications. The clinical diagnosis was confirmed by histopathology. The modes of presentation, differential diagnosis and treatment options of colonic lipomas are discussed. Lipomas of the large bowel should be considered in the setting of mechanical intestinal obstruction in this environment.

Introduction

Lipoma of the colon is uncommon[1, 2] and its clinical presentation may occur dramatically as an acute abdomen. However, the widespread use of colonoscopy has resulted in the recognition of a large number of asymptomatic[1, 6] colonic lipomas. It is our hope that this report will increase awareness to the presence of this lesion in the setting of colonic intestinal obstruction.

Case Presentation

A 43year old woman was referred to our clinic after a one week history of upper abdominal pain. The pain was colicky in nature, of increasing intensity, and relieved slightly by analgesics. She had "rumbling sounds" in her abdomen during episodes of pain. She had no nausea or vomiting.

Her bowel motions had become irregular, loose in consistency with fresh blood in her stool on one occasion. She had no previous surgical operation and her social history was unremarkable. She was not hypertensive or diabetic, and took anxiolytic drugs occasionally.

Physical evaluation showed a middle-aged woman in painful distress. She was mildly dehydrated but not clinically pale, her blood pressure was 110/85mmHg, and her pulse rate was 96 beats per minute and of good volume. Her abdomen was full but not distended. The abdomen was non-tender and no masses were palpable. Her bowel sounds were hyperactive. Digital rectal examination showed a good anal sphincter tone, empty rectal ampulla and no masses were palpable. The examining finger was not stained with blood.

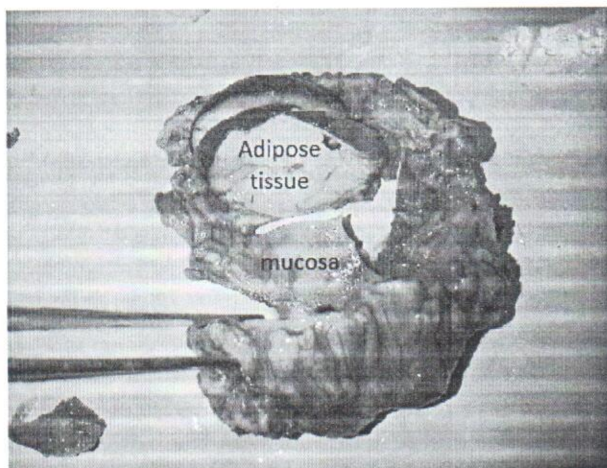
Laboratory investigation showed a Packed Cell Volume (PCV) of 31%, Total White Blood Cell Count of 6,200/ mm^3, Serum biochemical values were within normal limits. Plain abdominal X-ray, erect and supine, showed: multiple air fluid levels in the small bowel; no gas under the diaphragm; faecal loading of the distal colon. Abdominal Ultra Sound Scan "showed free fluid in the peritoneum and a doughnut sign in the left lumbar region, suggestive of intussusceptions".

A diagnosis of sub acute intestinal obstruction was made. After being adequately resuscitated with parenteral fluids over a 24hour period, exploratory laparotomy was carried out. Findings included: minimal free peritoneal fluid; mildly distended loops of terminal Ileum; a well defined mass (3cm x 5cm) in the mid transverse colon; no enlarged lymph nodes in the abdomen; the Liver was unremarkable. Limited transverse colectomy encompassing the mass and primary colo-colic anastomosis was carried out.

The post operative period was uneventful. She was discharged from hospital on the sixth post-operative day.

Histopathology report

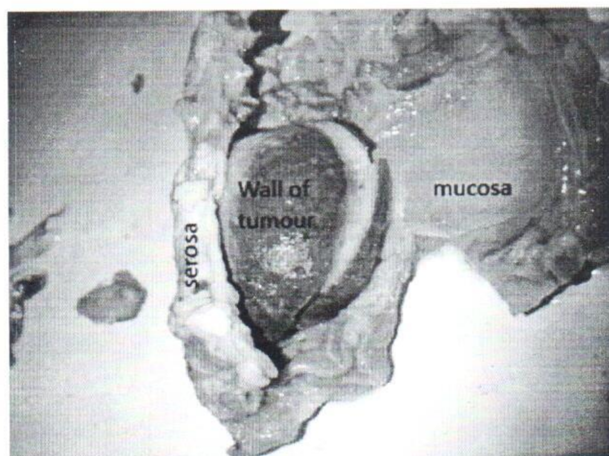
The specimen showed an oval mass almost completely occluding the lumen of the Colon. Cut sections revealed a well circumscribed sessile mass measuring 4.5cmx 3.5cmx 2.5cm. Sections of the mass showed homogenously yellow surfaces with a surrounding wall that is continuous with the mucosa. Histological sections of the colonic mass showed circumscribed sheets of benign lipocytes surrounded by a wall of compressed mucosa. Other areas of colonic tissue including the resection margins are unremarkable. A diagnosis of submuscosal lipoma was made (see fig 1, fig. 2 &fig 3)



LIPOMA WITHIN WALL OF COLON

A well circumscribed tumour within the colonic segment wall. Serial sections reveal an adipose tissue with homogenous yellowish cut surfaces.

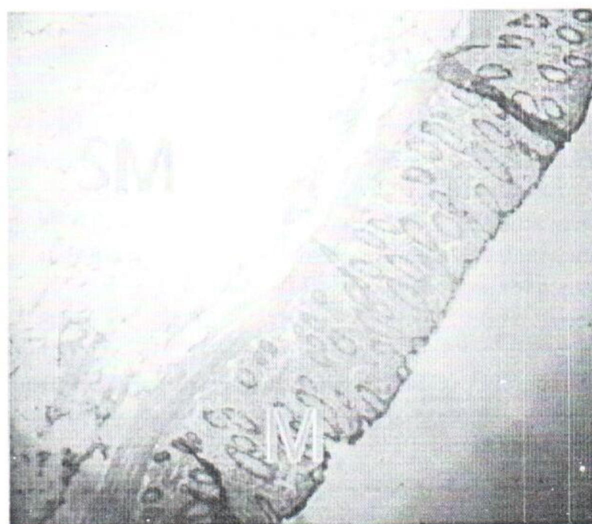
Figure 1



LIPOMA WITHIN WALL OF COLON 2

Circumscribed tumor within wall of colonic segment. The wall of the tumour consists of compressed colonic mucosa.

Figure 2



SUBMUCOSAL LIPOMA OF THE COLON

The mucosa (M) is on the right consisting of the epithelium, lamina propria and muscularis mucosa. The submucosa (SM) is on the left totally replaced by adipose tissue. Magnification x 40

Figure 3

Table: Cases of Transverse Colonic lipomas Published in the Literature[1]

Reference[1]	Year	Age (years)	Gender	Symptoms	Size (cm)	Treatment
Liessi G. et al	1996	50	Male	Abdominal pain, nausea, and Cramping	5	Right hemicolectomy
Stone C. Weber HC	2001	60	Male	Constipation	5	Endoscopic Removal
Rogers SO Jr. et al	2002	45	Female	Abdominal pain and diarrhea	5	Surgical resection
Atila K. et al	2007	56	Female	Acute abdominal pain, nausea Vomiting	5	Right hemicolectomy
Mnif L. et al	2009	67	Female	Abdominal pain	5	Surgical resection
Mason R. et al	2010	51	Female	Intermittent colicky Abdominal pain	4.5	Right hemicolectomy
Gould J. et al	2011	58	Female	Abdominal pain, bloating, blood per rectum		Transverse Colectomy

Discussion

Several reports in literature attest to the relative rarity of lipoma of the colon.[1, 2, 4, 5] It makes up 2% of benign colonic tumours[2, 5], it is usually single, more often in the right colon, and occurs in older individuals in their sixth and seventh decades. There is a slight female preponderance.

Majority of colonic lipomas are asymptomatic[1, 6] because they remain small and submucosal. Lipomas over 2cm in size are often symptomatic[1] and may present as rectal bleeding, rectal protrusion, recurrent abdominal pain, or intestinal obstruction.

The large size (3cm x 5cm) of the lipoma and the partial occlusion of the colonic lumen explain the recurrent episodes of abdominal pain in this patient. Location of lipoma in the transverse colon is rare[1]. Up until July 2011, only seven cases of lipoma of the transverse colon have been reported in published literature (Table i). To the best

of our knowledge this publication is the eight reported case of lipoma of the transverse colon.

Other benign tumours of the colon, such as Dermoid, Duplication cysts, Endometrioma and Angioma are rare[3,6] and can be easily diagnosed by their characteristic appearance on CT scan. Tumours originating in the muscle layer such as Leiomyoma and Neurofibroma are much less common[3].

Double contrast Barium Enema (DCBE), Computed Tomography (CT) Scan, and Colonoscopy are useful tools in the evaluation of patients presenting with less urgent symptoms.

At colonoscopy, the "pillow sign" or the "naked fat sign" may be demonstrated. It also affords the opportunity to obtain a tissue biopsy and histology.

Patients presenting with features of intestinal obstruction will require urgent surgical intervention to relieve the obstruction as described in this case report. Reports from other centres [7]described attempts at endoscopic resection of colonic lipoma. The relative resistant of fatty cells to electro coagulation, incomplete excision, and the risk of mucosal perforation are some of the drawbacks of this method. Colotomy and excision or segmental colectomy is effective[1] in the surgical management of the tumour. Small asymptomatic lipomas may be kept under close surveillance[6] with periodic colonoscopy or CT scan. Surgical excision of colonic lipoma is usually curative[6]. Recurrence, malignant transformation, or increased risks of colonic malignancy are rare.

References

1. Gould J, Morrison CA, Liscum KR, Silberfein EJ A Lipoma of the Transverse Colon causing intermittent obstruction. *Gastroenterol. Hepatol. 2011 July 7 (7) 487 – 490*
2. Hong Zhang, Jin-chun Cong, Chin-sheng Chen, Lei Qiao, En-Qing Liu Submucous Colon lipoma: A case report and review of the literature *World J. Gastroenterol. 2005; 11 (20), 3167 – 3169*
3. Wolf BS Lipoma of the Colon *JAMA, 1976; 235 (20): 2225 – 2227*
4. Ryan J, Martin JE, Pollock DJ. Fatty tumours of the large intestine: a clinicopatholoic review of 13 cases. *Br. J.Surg. 1989; 76:793-796*
5. Sakiani AP, Banerjee D, Hargest R. Giant Submucous Lipoma of the Colon. *The Internet Journal of Surgery 2003; 4(1):*
6. Zuber M, Harder F. Benign tumours of the Colon and rectum In: Holzheimer RG, Mannick JA (eds). Surgical Treatment: Evidence-based and problem oriented. Munich: Zuckshuerat; 2001.
7. Tamura S, Yokoyama Y, Morita T, Tadokoro T, Higshidani Y, *et al* Giant Colon lipoma: What kinds of findings are necessary for the indication of endoscopic resection?. *Am J. Gastroenterol. 2001; 96: 1944 – 1946*