

A Pedunculated lipoma causing colo-colic Intussusception in adult : a rare case report



Medical Science

KEYWORDS : Intussusception, Lipoma, Abdominal computed tomography, Colo-colic, Invagination

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ABSTRACT

Background: Intussusception is a relatively common cause of intestinal obstruction in children but a rare clinical entity in adults. Colonic lipomas are uncommon nonepithelial neoplasms that are typically sessile, asymptomatic and incidentally found during endoscopy, surgery, or autopsy.

Case presentation: A 55-year old man visited our emergency department with severe abdominal pain, multiple episodes of vomiting, abdominal distension. Abdominal ultrasound sonography and computed tomography showed a sausage-shaped mass presenting as a target sign, suggestive of intussusception. Surgery revealed a hard elongated mass in the right colon which telescoped in the transverse colon and caused colo-colic intussusception. Right hémicolectomy was performed and pathology documented a mature submucosal lipoma of the colon. We describe the difficulties in diagnosis and management of this rare cause of bowel obstruction and review the literature on adult intussusceptions.

Conclusion: A large submucosal lipoma is a very rare cause of colon intussusception that presents as intestinal obstruction in patients without malignancy. CT and magnetic resonance imaging remain the methods of choice for studying abdominal lipomas, particularly those rising into the layers of the colonic wall. Surgical resection remains the treatment of choice and produces an excellent prognosis.

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BACKGROUND

Intussusception is telescoping or invagination of one part of bowel into the adjacent segment commonly proximal into distal. It was reported for the first time in 1674 by Barbet of Amsterdam. It is relatively frequent in children but is rare in adults [1]. Adult Intussusception represents 1% of all bowel obstructions and 5% of all bowel intussusceptions [1, 2]. Lipoma may develop as a benign tumor in all organs but gastrointestinal lipomas are rare benign tumors and intussusception due to a gastrointestinal lipoma constitutes an infrequent clinical entity [2]. Colonic lipoma typically presents as a sessile polypoid mass but infrequently, they are pedunculated, with ulcerated or necrotic overlying mucosa. We present an extremely rare case of a symptomatic pedunculated lipoma of the transverse colon causing colo-colic intussusception that was surgically resected.

CASE PRESENTATION

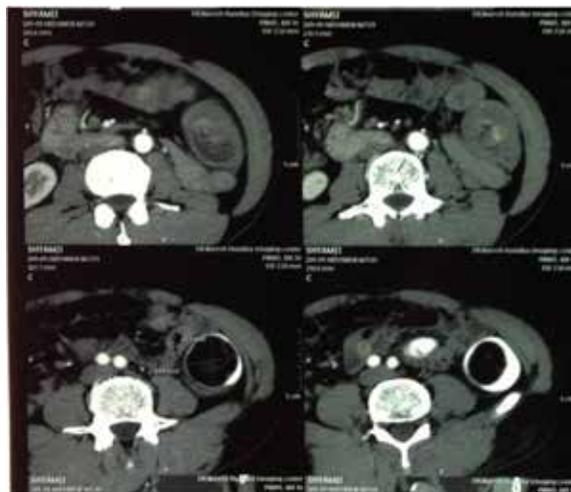
A 55-year old man presented with a history of colicky abdominal pain, bilious vomiting and constipation for five days. He had no past history of peptic ulcer disease, alteration in bowel habits, melena or weight loss.

ON EXAMINATION,

He was afebrile and hemodynamically stable. His abdomen was distended with localized tenderness in the left lumbar region and no palpable abdominal mass; bowel sounds were exaggerated. Initial rectal examination revealed no mass or blood.

INVESTIGATION

The laboratory findings of complete blood count on admission were within the normal limits. The total protein, and serum creatinine levels were within the normal range. He came with Abdominal CT (figure :1) which showed a sausage-shaped lesion typical of an intussusception that varied in appearance relative to the slice axis.



CT scans showed a low-density homogenous mass measuring 6 cm that was considered to be the leading point for the invagination. These all findings led to a diagnosis of intussusceptions induced by a lipoma.

MANAGEMENT

Exploratory laparotomy revealed the presence of a colo-colic intussusception in the transverse colon. (figure : 2)



Because of large size of the lipoma occluding colonic lumen, resection of that part and colo-colic end to end double layer anastomosis with diversional ileostomy was done.

The postoperative period was uneventful and the patient was discharged on the sixth postoperative day with ileostomy.

HISTO PATHO EXAMINATION

Macroscopic assessment of the resected specimen showed the presence of a round pedunculated colonic polypoid tumor of 8 × 6 × 4 cm in size with the features of lipoma, causing intussusception of the transverse colon. (figure : 3)



The histological examination revealed mature fat cells, connective tissue, and scattered blood vessels within the removed intraluminal mass. (figure : 4)



There was no evidence of tuberculosis, dysplasia or malignancy seen.

DISCUSSION

Intussusception remains a rare condition in adults, representing 1% of bowel obstructions of all hospital admissions; 60% developing due to neoplasms (60% malignant and 40% benign) [1]. Adult colonic intussusception is caused by a primary carcinoma in 65–70% of all cases. Colonic lipomas are found in the cecum, located submucosally. Colonic lipoma typically presents as a sessile polypoid mass, arising from the submucosa with an intact mucosa. Infrequently, lipomas of the colon are pedunculated, with ulcerated or necrotic overlying mucosa. Abdominal pain is the most common symptom followed by features of obstruction and palpable mass. A study in the Mayo clinic showed that 94% of lipomas are asymptomatic however isolated lipomas may present with nonspecific abdominal pain, bleeding and constipation [3].

The preoperative diagnosis is usually very difficult [1, 4, 5]. Imaging modalities can contribute to the preoperative diagnosis of colonic lipomas. Barium enema usually reveals a filling defect; however this finding is no specific of colonic lipoma or any other type of colonic neoplasm. On CT scan a lipoma has a uniform appearance with fat-equivalent density and a smooth border (–40 till –120 Hounsfield units). Recent reports [6] in the literature have suggested that abdominal CT scanning is the preferred radiologic modality for diagnosing intussusception from colonic lipomas. The sensitivity of CT scan to correctly diagnose intussusceptions has been reported from 71.4%–87.5% [7] while its specificity in adults has been reported to be 100% as verified by the subsequent surgery. For patients with features typical of colonic lipoma, CT reliably confirms the diagnosis.

Magnetic resonance imaging is particularly able to detect fatty lesions because of signal intensity characteristics typical for adipose tissue mainly on T1-weighted and fat-suppressed images. However, this imaging modality is seldom used for detecting and studying intestinal neoplastic lesions [6].

Colonoscopy can usually distinguish colonic lipomas from cancer and other neoplasias, especially when the overlying mucosa is intact.

In view of the uncertain etiology and diagnosis and high incidence of malignancy (approaching 50%), the treatment of intussusception in adults is invariably surgical resection [2, 4, 8]. The majority of authors recommend surgery as the standard method of treatment for every colonic lipoma greater than 2 cm in size [4, 8]. Surgical treatment includes resection, colostomy with local excision, limited colon resection, segmental resection, hemicolectomy, or subtotal colectomy. The choice of any of the above mentioned surgical interventions mainly depends on the lipoma size, location, and the presence or absence of definite preoperative diagnosis or disease complications.

The time and the type of the surgical intervention differ and depend on the site, cause, and degree of obstruction. Most surgeons agree that resection is necessary, particularly in colonic intussusceptions and in older patients, because of the possibility of a malignant tumor.

During last years a few selected cases of successful laparoscopic resection under colonoscopic guidance of symptomatic colonic lipomas have been reported [10, 11].

The present case highlights the possibility of intussusception with an unusually benign cause, such as lipoma, when adult patients present with nonspecific abdominal symptoms and bowel obstruction. Surgical resection remains the treatment of choice and produces an excellent prognosis.

CONCLUSION

A large intraluminal pedunculated lipoma is a very rare cause of colonic intussusception that presents as intestinal obstruction in patients without malignancy in elderly patients.

CT scan and magnetic resonance imaging remain the methods of choice for studying abdominal lipomas, particularly those rising into the layers of the colonic wall.

Surgical resection remains the treatment of choice and produces an excellent prognosis.

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