# GIST of Mesocolon: A Case Report

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## Abstract

Gatrointestinal Stromal Tumor (GIST) is a rare soft tissue tumor and a GIST arising from the mesocolon is even rarer and sparsely reported in the world literature. Herein we report one such case that we encountered in our clinical practice and review the literature on the management of such a rare case.

**Key words:** Gatrointestinal Stromal Tumor, Mesocolon, Soft tissue tumor

## Introduction

Gatrointestinal Stromal Tumors (GIST) is a rare soft tissue tumor representing 0.2% of all gastrointestinal tumors. GIST arising from the mesocolon is even rarer and is usually diagnosed only after histopathological study of resected specimen.

## Case Report

A 54 year old lady hailing from Pokhara, presented to the Surgical Out Patient Department with complaints of a gradually progressive abdominal lump in the left loin, of one year duration. The lump was initially small, barely noticeable to start with, but had grown in prominence for the last 2 months. She gave no history of altered bowel habits, weight loss or features of GI bleeding. On examination, her general condition was fair and abdominal examination revealed a firm to hard mass 12 X 13 X 10cm located on her left lower quadrant. The mass was mildly tender, had irregular surface and was mobile. Digital rectal examination was normal.

The patient was further investigated with the provisional diagnosis of Colonic malignancy. Her stool report was 'positive' for occult blood. Ultrasonography of abdomen revealed a mixed echoic Space Occupying Lesion 10.6 x 10.3 cms in left lumbar region, likely to be a colonic Carcinoma. Barium enema was however normal up to left lateral third of transverse colon. Hence a CECT Scan was performed which revealed a large heterogenous enhancing soft tissue mass 9.3 x 8.1 x 10.7cm, extending from lower border of left kidney up to the left iliac crest pushing descending colon postero-laterally and small bowel loops anteriorly.

With the probable diagnosis of soft tissue sarcoma or a GIST, exploratory laparotomy was performed. The per operative findings was of a 12 x 8 x 8cms mass arising from sigmoid mesocolon adherent to wall of sigmoid colon, transverse colon and proximal jejunum. Subsequently, a limited left hemicolectomy from mid-transverse colon to sigmoid colon was performed together with the excision of 45cm jejunum adherent to mass, approximately 15cm from Duodeno-Jejunal junction.

The patient made an uneventful post operative recovery and was discharged on the tenth post operative day. The Histopathological report revealed a Gastrointestinal Stromal tumour (GIST) of sigmoid mesentry with ulceration of intestinal mucosa by the tumour and margins free of tumor. Moderate cellularity with mitotic figures of 3 per 50 HPF was reported. Subsequently immunohistochemistry was sent and was reported to be CD- 117 Positive, thus confirming the diagnosis of GIST.

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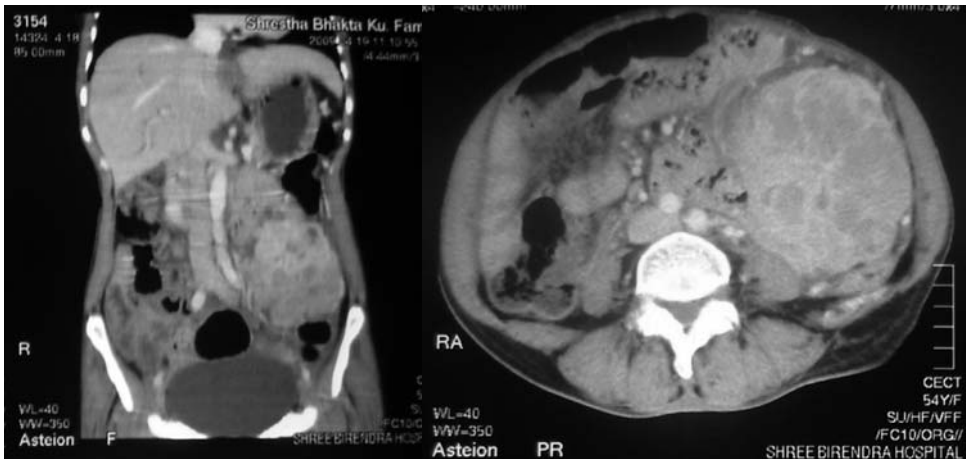


**Fig 1:** CECT abdomen showing heterogenous mass lt lumbar region

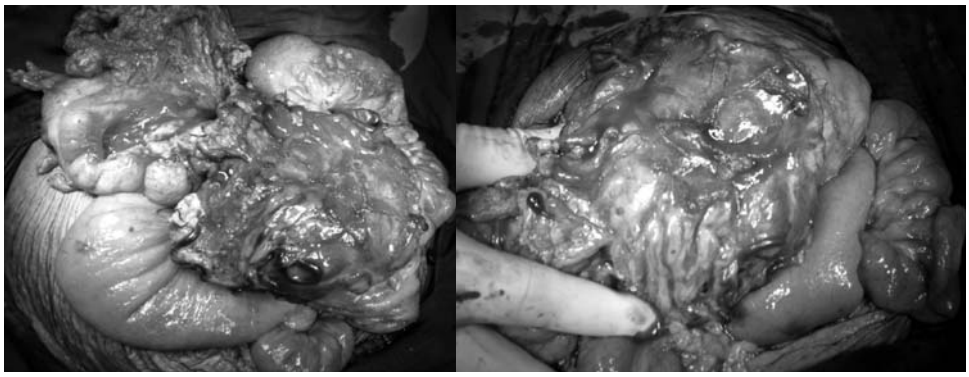

**Fig 2:** Mass arising from Sigmoid mesocolon adherent to jejunum

## Discussion

Sarcoma of the gastrointestinal tract arises from stromal cells of the intestinal wall. The vast majority of these tumors possess myogenic features, and historically they have been classified as leiomyosarcoma[1]. After the advent of immunostaining and electron microscopy, however, some gastrointestinal sarcomas were found to exhibit both myogenic and neurogenic features[2,3]. Accordingly, the term "gastrointestinal stromal tumor (GIST)" was adopted, in 1983[4]. It has recently been proposed that this tumor arises from the interstitial cells Cajal. GISTs are rare soft tissue tumors representing 0.2% of all gastrointestinal tumors. The predominant sites for GISTs are stomach in 50-60%, small intestine– 30-40%, colon & rectum– 5-10%, oesophagus- 5%. They are rarely found in the omentum, mesentery or the retroperitoneum. Of the reported omental and mesenteric GISTs in four published series a total of 99 such tumors were studied[5,6,7,8]. Further, only two case reports of GIST arising in the mesocolon were found in the literature[9,10].

The symptoms and signs of GISTs are nonspecific depending, to some extent, on their size, site, and pattern of growth. In contrast to intramural GIST, mesenteric and omental tumors can grow to a large size without causing symptoms.

The histologic diagnosis is confirmed in fewer than half of the patients prior to the time of surgery. A CT-guided biopsy is not always done because intra-abdominal tumor-cell seeding can compromise future resectability, and patients with a ruptured tumor have a prognosis similar to that in patients with noncurative resection. Percutaneous needle biopsy should only be performed when the tumor is clearly unresectable or when an alternative diagnosis such as lymphoma or germ-cell tumor is suspected.

There is little agreement about the treatment and prognosis of lymph-node metastasis from GIST. Because such metastasis is considered an infrequent

event in the natural history of these tumors, local excision has a rational basis and elective lymphadenectomy is generally not indicated[13].

The overall survival rate for patients with a GIST is 28%–35% at 5 years, and the rate increases to 54%-65% after complete resection.[14] Patients with a low-grade rectal GIST have a significantly longer median survival than those with a high-grade tumor (median survival, 5–10 years versus 2–3 years). Mitotic activity, cellularity and presence of necrosis have been found to be associated with worse outcomes. Reith et al found a mitotic rate of >2/50 HPF, the presence of necrosis, and high cellularity to be useful in predicting biologic behavior in GISTs, which tend to have an aggressive behavior[8].

Complete gross surgical resection with negative microscopic margins remains the mainstay treatment of localised resectable GIST. Currently; trials are underway to establish the role of adjuvant and neoadjuvant therapy for high risk cases. Advanced, nonresectable and/or metastatic GIST is safely and continuously treated with imatinib at 400 mg daily.

## Conclusion

GIST of mesocolon is a rare tumor whose mainstay of treatment remains complete R0 surgical resection. The use of adjuvant therapy with imatinib is still based on the clinical judgment of the treating physician in the absence of results of ongoing clinical trials.

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