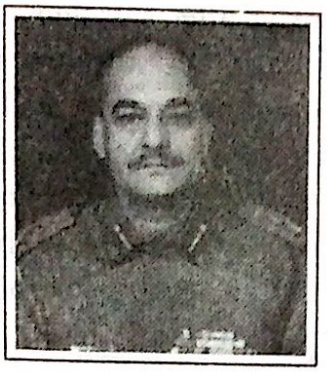
HUGE OMENTAL GIST – A RARE CASE PRESENTATION



✍ *Col. Dr. B.K. Hamal, MS, FICS*
Consultant Surgeon
✍ *Dr Ganesh Thapa, MS Resident*
✍ *Dr B.G. Karmacharya, MS Resident*

Abstract

Omental tumors are usually metastatic tumors from stomach, intestine or peritoneum. Primary tumors of omentum are rarely found. We report a rare case of primary omental gastrointestinal stromal tumor (GIST) of the omentum in a 60 years man who presented with progressive abdominal distention and ascites.

Key words: GIST, pleomorphism, c-kit protein

Introduction

GISTs are mesenchymal tumors arising in the gastrointestinal (GI) tract and sometimes within the abdomen without GI connection. Recent studies indicate that the tumor shows differentiation towards the interstitial cells of Cajal which link the autonomic innervation of the GI tract with the smooth muscle cells and regulate GI motility. Common sites are stomach and small intestine. Omentum is uncommon site. These present in the middle aged with long history non- specific symptoms of at least 12 months duration. Immunohistochemistry confirms the diagnosis. About 25 % are malignant, but to differentiate between benign and malignant tumors even with histology is difficult. Wide local excision is the main treatment modality. Long term follow up is essential to predict the outcome.

Case report

A 60 years male who presented with progressive abdominal distention and difficulty in breathing of two years duration was referred by our physician. On examination, his general condition was fair, vitals were within normal limits and had pallor and bilateral pedal edema. Abdomen was distended, non-tender and with shifting dullness and fluid thrill. No definite mass could be palpated.

On investigations, his hemoglobin was 10gm%. Other routine hematological and biochemical investigations were normal. Occult blood in stool was negative. Ascitic fluid was exudative and without malignant cells. USG abdomen showed huge cystic intra abdominal lesion of unknown origin. CT scan of abdomen revealed huge ascites with a large mixed density soft tissue mass in the left side of the abdomen with no contrast enhancement.

Exploratory laparotomy was done with a long midline incision. There was large cystic lesion arising from the greater omentum measuring 28x19x11cms and weighing 8 kgs. (Photo 1)Liver, stomach, small and large intestine and peritoneum were all normal. The omental cyst was excised in toto.

The postoperative period was uneventful. The histopathogical section showed spindle cells with mildly hyperchromatic nuclei, mild pleomorphism and mitotic figures 3/ 50 HPF suggestive of omental GIST of unknown malignant potential.

Discussion

Primary tumors of the omentum are rare and almost all omental neoplasia represent metastasis from intra abdominal tumors, mostly carcinomas and lymphomas[1].

In our case, it seems to be the primary tumor of omentum. Primary tumors of omentum are usually of mesenchymal origin. Pathology of these includes smooth muscle tumors, neurogenic tumors and tumors of uncommitted mesenchymal cells often considered as a less differentiated variant of leiomyoma. And the last group has been recently classified as GIST separate from the leiomyoma and leiomyosarcoma on the basis of immunohistochemical staining characteristics[2]. GISTs commonly present in the stomach and small intestine (80-90%). Omentum is an uncommon site for GIST[3]. GISTs, like the interstitial cells cell of Cajal, the gastrointestinal pacemaker cells, express CD 117(c-kit protein), the origin of GISTs from interstitial cells of Cajal has been proposed2. Microscopically, there are types-spindle cell and epitheliod cell types.

25% of GISTs are malignant[3]. The differentiation between the benign and malignant tumors may be difficult even by histology. Mitotic activity might be important in this respect although lesions with little or low mitotic activity have been known to recur after excision. In general, however, malignant tumors are larger, ulcerated and show marked cellularity and necrosis. Spread of tumor is a clear sign of being malignant. The prognostic prediction on the basis of histologic features is difficult, so the long term follow up is necessary[4].

These tumors present at the middle aged, with long history, usually exceeding one year. The presenting features are abdominal pain, abdominal distention, weakness, weight loss, gastrointestinal bleeding and ascites. They may also present as acute abdomen. About one fifth are asymptomatic.

Immunohistochemistry confirms the diagnosis. All GISTs are positive for c-kit protein, vimentin and CD 34 and are negative for desmin and S100 -protein. USG, CT scan and Barium enemas are helpful in making a diagnosis.

The surgical excision with adequate margins is the treatment of choice. The chemotherapy and radiotherapy have little role in their management.

References

1. Cushieri A, Steele R.J.C, Moosa A.R. ed Essential Surgical Practice (2002) 4th ed. Arnold, London
2. Miettinem M et al. GISTs primary in the omentum and mesentery: clinicopathological and immunohistochemical study of 26 cases. Am J Surg Pathol. 1999 Sep;23(9): 1109-18
3. Roy S. Gastrointestinal Stromal Tumors. GI Path Online-India
4. Hellies R et al. GIST: surgical treatment of 34 cases. Tumori. 2003 Jul-Aug; 89(4 Suppl):133-4