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PRIMARY MESENTERIC CARCINOID TUMOR: A RARE CASE

General Surgery

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ABSTRACT

Mesenteric tumors are very rare entity. Primary mesenteric carcinoid tumor is one the rarest of mesenteric tumors with only a few reported cases. Careful and complete examination of the resected bowel is necessary to rule out the presence of possible primary tumor in the adjacent bowel loop.

KEYWORDS

Mesenteric Carcinoid tumor, Neuroendocrine tumor, Primary tumor

INTRODUCTION:

Mesenteric tumors are uncommon. These lesions may be solid or cystic. And these lesions may have benign or malignant potential. Carcinoid tumors are rare epithelial tumors. Carcinoid tumors are located most commonly in appendix, small intestine and rectum.[1] Secondary involvement of mesentery due to metastasis is not uncommon. Primary mesenteric carcinoid tumor is rarest entity with only few cases reported.[2,3]

CASE REPORT:

A 60 years old female patient was admitted with complain of dull aching abdominal pain for 3 months. Patient had no other gastrointestinal symptoms, no weight loss and no comorbidities.

On per abdominal examination a single, diffuse, ill defined, firm, intraperitoneal lump of size 5x4 cm^2 was present involving left lumbar and umbilical region. Blood investigation were normal. Hb 10.2 gm%, TLC 6200, PLT 2.1 lakh. Renal function test and liver function test were normal. Ultrasound examination of abdomen revealed a solid mass of size 7 x 5.5 cm in left lumbar region. Computed tomography (CT) scan demonstrated a heterogeneously enhancing solid soft tissue density mass lesion of size 68 mm x 50 mm x 43 mm located anterior to the lower pole of left kidney in the mesentery.

Patient underwent open midline exploratory laparotomy, the tumor was found to be arising from proximal ileal mesentery. Resection of proximal ileum along with tumor and end to end anastomosis of small bowel loop was performed.

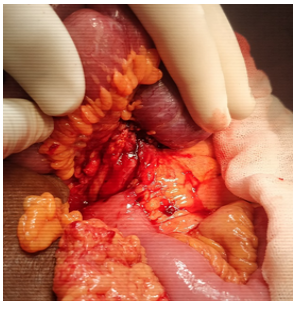

Figure 1: Intra-op picture of tumor involving small bowel mesentery.

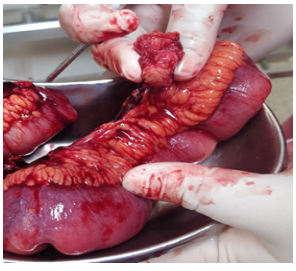

Figure 2: Tumor involving small bowel mesentery was removed along with small bowel.

The specimen was sent for histopathological examination. Gross examination revealed an encapsulated growth in the mesentery measuring 6.5 cm in diameter. The bowel loop was unremarkable. No lymph nodes were found in the specimen.

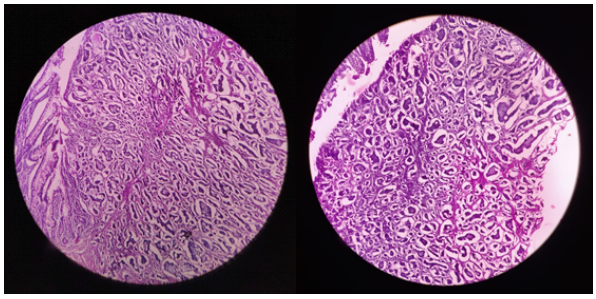

Figure 3 & 4: Microscopic pictures of the tumor involving mesentery of small bowel.

Microscopy revealed uniform, small, bland tumor cells arranged in solid sheets and glandular pattern. Individual tumor cells show eccentric nuclei, coarsely stippled chromatin (salt & pepper) and finely granular cytoplasm. Overall histopathological features are suggestive of carcinoid tumor.

DISCUSSION:

Mesenteric carcinoid tumors are very rare. Most them are secondary from a primary gastrointestinal tract carcinoid. It has been observed that even small carcinoid can metastasize in small bowel.[1] To rule out primary gastrointestinal tract carcinoid tumor, a meticulous pathological examination of the resected adjacent bowel is advised. A CT scan and 5 HIAA levels are alone not confirmatory. In this case bowel loops were normal and not involved by the tumor primarily arises from mesentery of proximal ileal loop. The occurrence of carcinoid tumor from mesentery can be explained by the presence of neural crest cells in small amounts in unconventional sites such as intestinal septum of heart, the liver hilus and mesenteric vessels due to the dispersed migratory properties of neural crest.[4,5]

Surgery is the mainstay of the treatment of neuroendocrine neoplasm. In this case patient underwent explotory laparotomy through midline incision, tumor was found in the mesentery of the proximal ileum. Resection of tumor along with adjacent small bowel loop and anastomosis was done. Patient was asymptomatic after 6 months of follow-up.

In general, for tumours smaller than 2 cm without lymph node involvement, local segmental resection is adequate.[6,7] However, for tumours larger than 2 cm with regional mesentery metastasis and lymph node involvement, wide excision of the bowel and mesentery with lymph node dissection has been recommended because tumours larger than 2 cm are associated with 80-90% incidence of metastasis.[6-8]

CONCLUSION:

The primary mesenteric carcinoid tumor is a rare entity. Surgical

resection of the tumor along with adjacent bowel loop is the mainstay of the treatment. A through histopathological examination to rule out the presence of primary tumor in adjacent bowel loop.

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