Primary Leiomyosarcoma of The Transverse Mesocolon

G Singh, B Mathur, P Nuwal, B Laddha

Citation

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Abstract

Leiomyosacroma is an uncommon malignant tumor which arises from a variety of sites including the gastrointestinal tract, genitourinary tract, retro peritoneum, superficial soft tissue, lungs and inferior vena cava. The transverse mesocolon is an extremely rare site for a primary leiomyosarcoma.

This patient presented to our department with a freely mobile abdominal lump without any other complaint. Neither physical signs nor any investigation could ascertain its diagnosis and origin; only laparotomy revealed this extremely rare tumor. Fine needle aspiration cytology revealed a hepatoma but histopathology confirmed the diagnosis of primary leiomyosarcoma. Total excision followed by chemotherapy was curative. Review of literature shows only two previously reported cases of primary leiomyosarcoma of the transverse mesocolon and this article describes the 3rd case reported in literature.

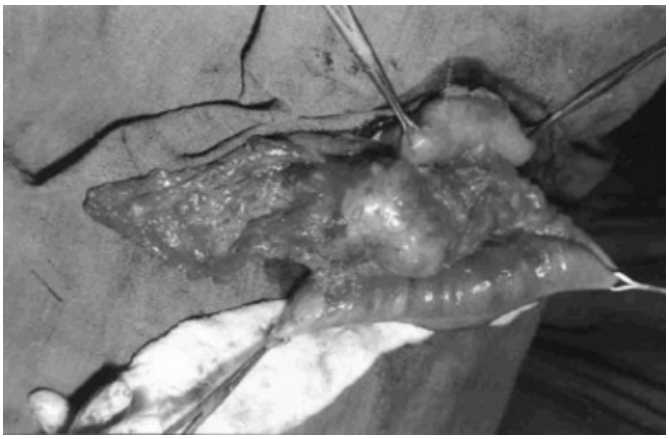
CASE REPORT

A 71-year-old Indian male reported to our outpatient department with a freely mobile abdominal lump without any other complaint. The lump was oval in shape, nodular surfaced and hard in consistency. The lump could be manually moved by patient himself as well as by physicians to any part of abdomen with out any difficulty or pain. Chest X-ray, routine blood investigations, urine examination and liver function tests were normal. Ultrasonography (USG) showed a lump of 12 x 8 cm. in size in left illiac fossa. Origin of the swelling could not be ascertained and all other viscera were found to be normal.

Serial sectioning by abdominal helical computed tomography (CT) scan showed a lump of 12.8x8.6 cm in the umbilical region. The swelling was present between the transverse colon and stomach. The swelling originated probably from the transverse mesocolon. All other abdominal viscera were normal and no metastases were seen in any abdominal organs. No local or distant lymphadenopathy could be detected. On Fine Needle Aspiration Cytology (FNAC) the pathologist suspected hepatoma.

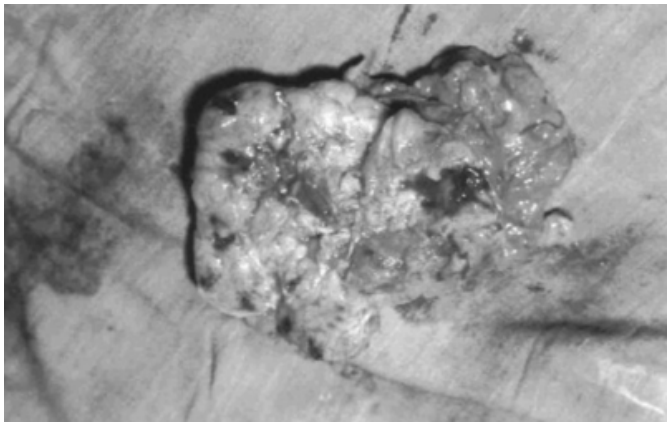
The patient was scheduled for exploratory laparotomy. During laparotomy a large tumor was found in the transverse mesocolon between stomach and transverse colon (Photo 1).

Figure 1



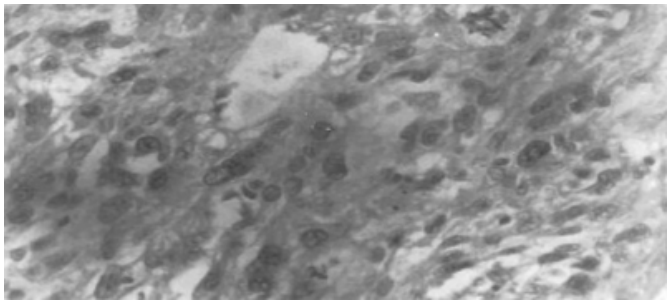
The tumor mass was 13 cm x 9 cm in size, hard in consistency, well circumscribed, oval, non-capsulated, and irregular surfaced with areas of hemorrhage. Even at this big size of tumor and highly malignant nature it was not adhered to the transverse colon or stomach. All other viscera were normal and no other abdominal pathology could be detected. The tumor was excised completely en block. (Photo 2)

Figure 2



Histopathology was consistent with the diagnosis of malignant leiomyosarcoma. Microscopically the tumor consisted predominantly of spindle cells having blunt ended cigar shaped nuclei, at places arranged in fascicles. Cytoplasm was eoisinophillic. There was high mitotic activity and a bizarre cellular pattern with areas of hemorrhage and necrosis. (Photo 3- x 100 microphotograph, HPF)

Figure 3



The patient was given chemotherapy (Cyclophosphamide, Vincristine, Dacarbazine, and Doxorubicin). After two months of surgery CT scan was repeated and this showed multiple small metastases in the peritoneal cavity. Chemotherapy was continued and CT was repeated after two month which showed complete disappearance of all metastases.

DISCUSSION

Primary Leiomyosarcoma of transverse mesocolon is an extremely rare tumor and review of literature revealed only two previous case reports. Leiomyosarcoma of transverse mesocolon probably arises from vessels in mesocolon[1]. There are numerous reports of primary leiomyosarcoma of the genitourinary tract, gastrointestinal tract, retroperitonium and Inferior vena cava. Cases of the primary tumor of leiomyosarcoma arising in diaphragm, Ligamentum teres, gall bladder, lungs and liver have also been reported[3]. Leiomyosarcoma contributes 1-2% of all malignancies affecting the gastrointestinal tract[1]. Males are more commonly affected with mean age in the 5th decade.[1], [2]

Clinically, the patient presented with a lump abdomen and dull aching pain. No other signs and symptoms were present. Other abdominal viscera were normal and except the lump no other pathology could be found in the abdomen. It is very difficult to diagnose a case of primary leiomyosarcoma because of lack of specific gastrointestinal symptoms and vague symptoms with which most of the cases present. But, if leiomyosarcoma is suspected, some specific investigations like endoscopic USG, carefully done contrast studies like enteroclysis may be of use[4]. Scientists from the gastroenterology research unit from Mayo Clinic & Foundation reporteded Cholicystokinin (CCK) receptors in a gastric smooth muscle tumor, that is distinct from other peripheral CCK receptor, biologically and functionally.[5]

Evaluation of this patient did not reveal any evidence of primary leiomyosarcoma either from history and physical or on laboratory examination. Once the tissue diagnosis was established a decision with regard to mode of therapy was made. While assessment of malignancy by histological criteria is of some help, a mitotic figure of >50 H.P.F. is suggestive of aggressiveness.

With regard to therapy, complete excision was done followed by chemotherapy. Two months after surgery, the patient was physically well, except a complaint of weakness. A repeat post surgery CT after 2 months showed presence of multiple small secondaries in peritoneum. Chemotherapy was continued and CT scan was repeated after 4 month of surgery; which showed complete disappearance of all secondaries.

Due to absence of literature regarding primary leiomyosarcoma of the transverse mesocolon, the survival cannot be assumed till further cases are reported and studied, though cure can be assured by complete surgical excision followed by chemotherapy and a fairly good survival can be assumed even if metastasis is present and the tumor is highly malignant. The prognosis, recurrence and survival depend on the type of surgery and chemotherapy, tumor size, involvement of lymph node and neighboring structures.[6]

Thus, consideration of the possibility of primary Leiomyosarcoma of transverse mesocolon is important in the presence of lump abdomen, because even in the presence of

a big tumor the sign and symptoms are vague and diagnosis may be difficult due to rarity of this tumor.

Results from the assessment of all the pathology and mode of treatment in this case shows that, even in the presence of this rare, big malignant tumor and metastases, prognosis is not so poor, and results can be improved by aggressive surgery followed by chemotherapy.

CORRESPONDENCE TO

Gajendra Singh, M.S. 6 Buckboard Court Bolingbrook, IL 60490 USA Phone-630.269.2726 E-mail: tonygaj_99@yahoo.com

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Author Information

Gajendra Singh
Senior Resident, Surgery, Department of Surgery, J.L.N. Medical College & Hospital

Brijesh Mathur, M.S.
Assistant Professor, Surgery, Department of Surgery, J.L.N. Medical College & Hospital

Paras Nuwal, M.D.
Associate Professor, Pathology, Department of Surgery, J.L.N. Medical College & Hospital

B. L. Laddha, M.S.
Associate Professor, Surgery, Department of Surgery, J.L.N. Medical College & Hospital