Cerrahi Sanatlar Dergisi
Journal of Surgical Arts
ISSN: 1308-0709

Case Report

A CASE OF ABDOMINAL LUMP IN AN ELDERLY PATIENT CREATING A DIAGNOSTIC DILEMMA

Yaşlı bir hastada tanısal kargaşaya sebep olan abdominal kitle olgusu

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J Surg Arts (Cer San D), 2015(1):20-23. **http://dx.doi.org/10.14717/jsurgarts.2015.164**

ABSTRACT

Gastrointestinal stromal tumors (GISTs) are uncommon neoplasms but comprise of the most common mesenchymal tumors of the gastrointestinal tract. Depending on the site of the tumor, the clinical manifestations vary considerably. GISTs arising from the stomach may sometimes pose a challenge for diagnosis to the clinician.

Here we report a case of GIST presenting as a painless gradually increasing intra-abdominal lump in a 65-year-old female patient that was initially diagnosed as retroperitoneal sarcoma by ultrasonography and contrast-enhanced computed tomography. Fine needle aspiration cytology of the mass revealed spindle cells with plump nuclei suggestive of GIST. Exploratory laparotomy showed that the lump was a large variegated mass occupying the left hypochondrium, epigastrium, umbilical and left lumbar regions. Histopathology studies showed highly cellular morphology with spindle cells along with myxoid changes and areas of hemorrhage and necrosis, leading to a diagnosis of a high grade GIST arising from the stomach.

Key words: Histopathology; mesenchymal tumor; resection; mitotic count.

ÖZET

Gastrointestinal stromal tümörler (GİST), gastrointestinal sistemde karşılaşılan mezankimal tümörler olup nadir görülen lezyonlardır. Tümörün yerine bağlı olarak klinik belirtileri değişiklikler gösterir. Mide menşeyli GİST'ler zaman zaman klinisyenlerin ayırıcı tanısında sözkonusu olur.

Bu makalede 65 yaşındaki bir kadın hastada ultrasonografik olarak ve kontrastlı tomografi ile başlangıçta retroperitoneal sarkom olarak tanımlanan bir GİST olgusu sunuldu. İnce iğne aspirasyon biyopsisi ile iğ şekilli ve dolgun nükleuslar içeren GİST tanısı konuldu. Yapılan tanısal laparotomide sol hipokondrium, epigastrium ve epigastriumu dolduran büyük kitle saptandı. Histopatolojik çalışmalar sonucunda, bol miktarda iğsi hücre morfoloji ve miksoid değişiklik, hemoraji ve nekroz varlığı ile mide kaynaklı yüksek dereceli GİST tanısı konuldu.

Anahtar kelimeler: Histopatoloji, mezankimal tümör, rezeksiyon, mitoz sayısı.

INTRODUCTION

Gastrointestinal stromal tumors (GISTs) are the most common mesenchymal tumors of the gastrointestinal (GI) tract and usually occur in older adults (median age: 55-60 years; average age: 40-70 years) (1-3). They constitute 2% of all neoplasms of the GI

tract and are composed of characteristic histologic features like spindle cells (70%), epithelioid cells (20%) and pleomorphic (mixed cellular, remaining 10%) morphology (3,4). Common features of GISTs are abdominal pain, distension and GI bleeding (1). 70% cases of GISTs are symptomatic, 20% are asymptomatic which are detected incidentally and 10% are detected at autopsy (2). In this article we report an interesting case of histologically diagnosed GIST presenting as an intra-abdominal lump in an elderly patient.

Case

A 65-year-old female patient presented with a progressive painless swelling in the left upper abdomen since last eight months, vomiting (particularly after meals) since last four months and loss of appetite with significant weight loss since last four months of presentation. She did not have any history of hematemesis, melena, jaundice, fever, hypertension or diabetes. Her bladder and bowel habits were normal.

On general examination, she was conscious, alert, oriented and cooperative. She had average built with mild pallor without icterus, edema or lymphadenopathy. Her pulse was 80/ min and regular with blood pressure of 130/70 mm of Hg.

The abdominal mass was present in the left hypochondrium and extended into epigastrium, umbilical and left lumbar region. It was 18 cm / 20 cm in size, globular in shape and firm in consistency with well-defined margin. Its upper part was under the left costal margin. The lump was mobile in horizontal and vertical directions, with no movement associated with respiration. It did not get prominent with head- or leg-raising tests. It was also not prominent in knee-elbow position and had no bruit.

Her blood test revealed low hemoglobin level (8.8 g/dL) with mild eosinophilia (10%). Her urea, creatinine and sugar levels in blood were within normal limits with normal liver function test (LFT) results.

Ultrasonography (USG) of the whole abdomen showed huge heterogenous space occupying lesion (SOL, 165 mm/125 mm in size) occupying the left hypochondrium suggestive of a stomach mass or retroperitoneal sarcoma (Figure 1). Contrast-enhanced computed tomography (CECT) of the whole abdomen revealed variegated large mass at retrogastric area, likely of neoplastic origin, and was suggestive of retroperitoneal sarcoma (Figure 2). CT-guided fine needle aspiration cytology (FNAC) from the lump showed discrete and bundles of spindle cells having plump nuclei which was suggestive of gastrointestinal stromal tumor (GIST).

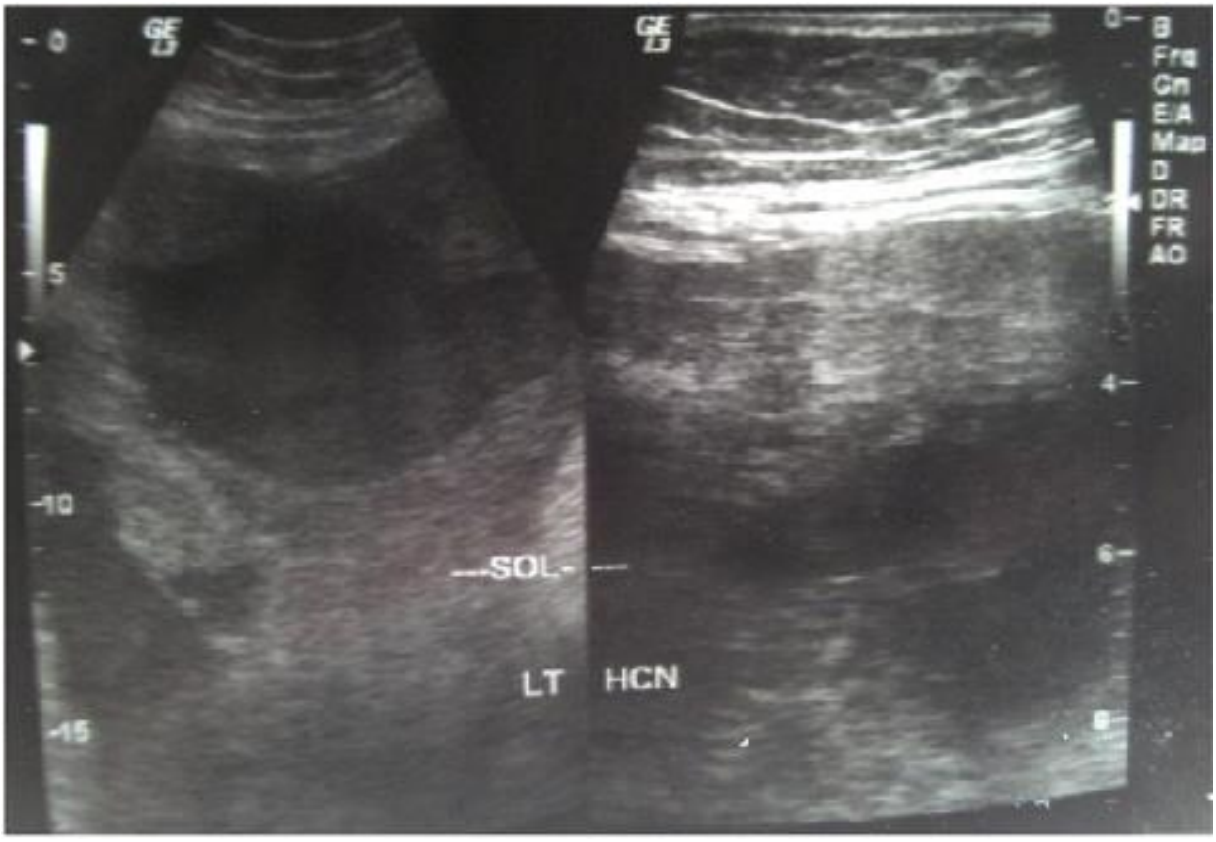

Figure 1: Ultrasonography of the whole abdomen showed huge heterogenous space occupying the left hypochondrium

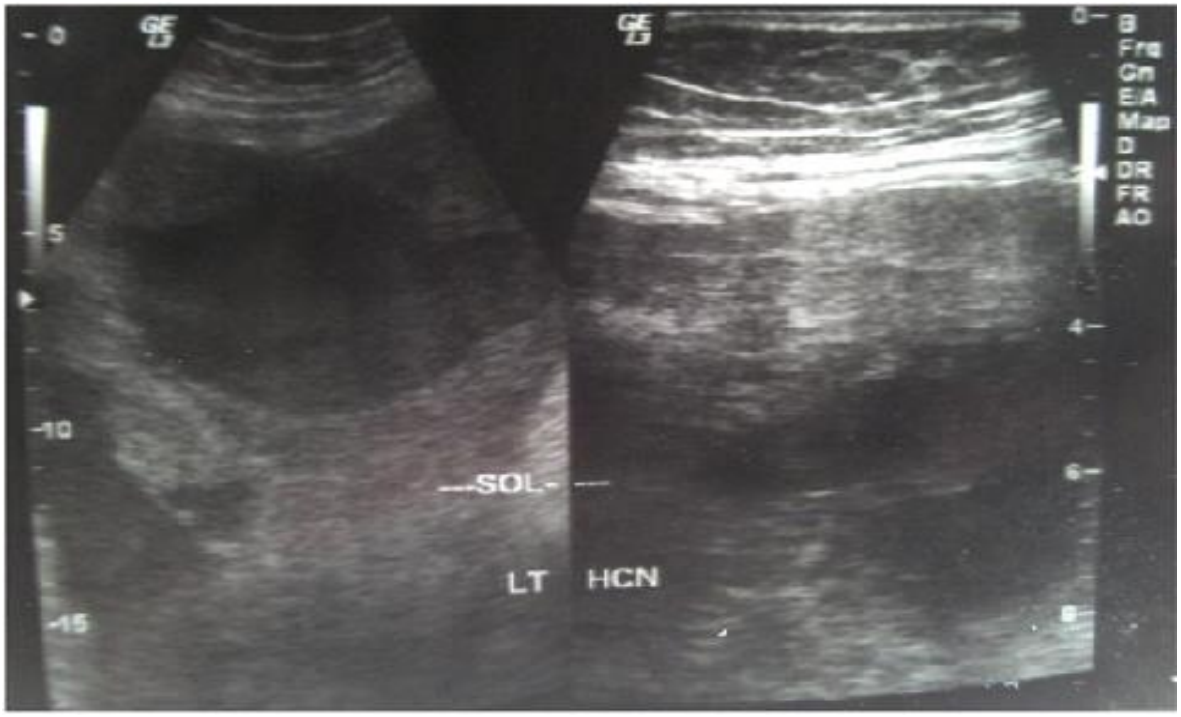

Figure 2: Contrast-enhanced computed tomography of the whole abdomen revealed variegated large mass at retrogastric area.

On exploratory laparotomy, large variegated mass in left hypochondrium, epigastrium, umbilical and left lumbar region was found (Figure 3). The stomach was pushed anteriorly by the lump. The mass was adherent to surrounding structures and had a definite stalk-like origin from posterior surface of fundus near gastro-esophageal junction (Figure 4). There was no evidence of metastasis. The adhesions were released securing hemostasis. The stalk of the mass was excised from posterior stomach wall, the mass was resected out and the stomach wall was repaired. A drain was placed in the left paracolic gutter and abdomen was closed in layers.

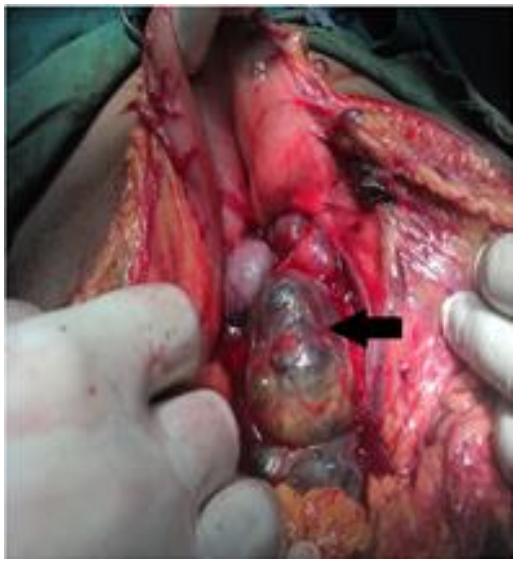

Figure 3: Large variegated mass in left hypochondrium.

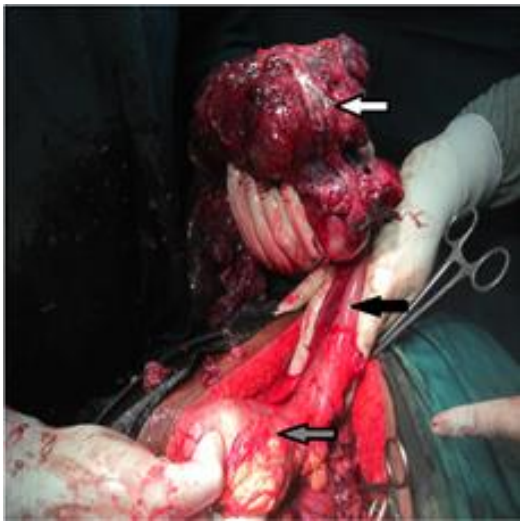

Figure 4: The mass had a definite stalk-like origin from posterior surface of fundus near gastro-esophageal junction (Arrows).

The resected mass was large (18cm/20cm) with variegated surface and areas of solid and cystic changes (Figure 5). There were areas of hemorrhage and necrosis along with features of increased vascularity. It did not have any well defined encapsulation.

The post-operative period was uneventful with smooth recovery of the patient. There was serous collection in drain, amounting to ~100 ml per

day initially which gradually got reduced in the next few days. Intestinal peristaltic sound appeared on the fourth post-operative day, and she was started on oral fluid from that time. The abdominal drain was removed on the seventh post-operative day. There was no surgical-wound infection. She was discharged after 14 days in stable condition.

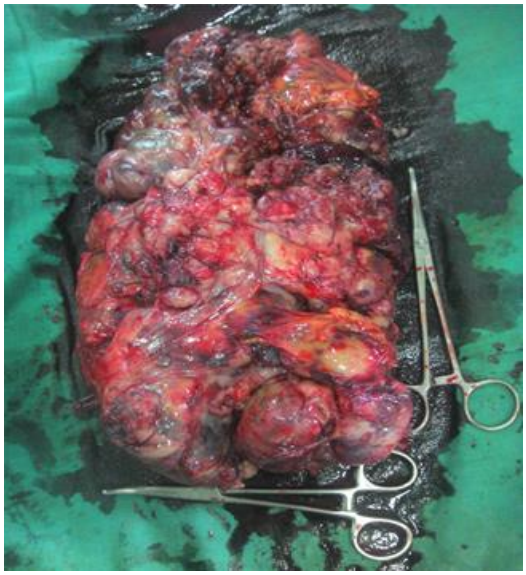

Figure 5: The resected mass including necrosis and hemorrhage..

The resected mass was a highly cellular tumor with spindle cells in bundles, fascicles and palisades (Figure 6). There were myxoid changes with areas of hemorrhage and necrosis. Histopathologically it was confirmed as a high grade gastrointestinal stromal tumor (GIST).

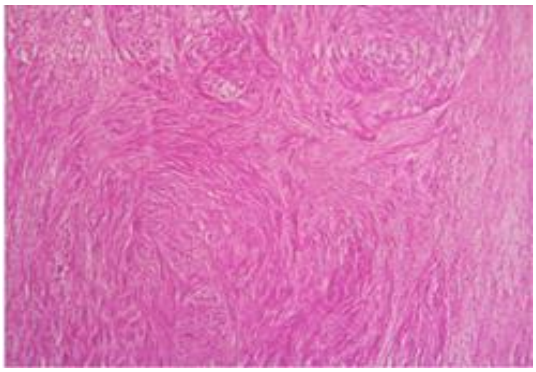

Figure 6: Highly cellular tumor with spindle cells in bundles, fascicles and palisades

DISCUSSION

Here we have presented, in an elderly patient, a case of abdominal lump which showed features of retroperitoneal sarcoma in USG and CECT; however, it revealed features of GIST in FNAC. The mass on histopathological examination showed spindle cells and was confirmed as GIST. GISTs arise from interstitial cells of Cajal or related stem cells (3), usually in older adults, as mentioned in the introduction. 60% occur in the stomach, 35% in small intestine and <5% in rectum, esophagus, omentum and mesentery (3). They usually present with gastrointestinal hemorrhage or pain and rarely as painless abdominal lump. Smaller GISTs tend to grow into lumen while larger ones are lobulated and exophytic. Tumor size and mitotic activity are the best predictive prognostic features of GISTs (3). Tumors > 5 cm in diameter and > 5 mitotic count / 50 HPF, or > 10 cm in diameter with any mitotic rate, or any size with > 10 mitotic count / 50 HPF have high malignant potential (5). Necrosis and ulceration in such lesions suggest malignant potential with high chance of recurrence. Immunohistochemical demonstration of KIT (CD117) and CD34 helps in confirmation of the diagnosis (5).

Surgery is the mainstay of treatment of GIST (2). Resection of such tumor with microscopic negative surgical border is sufficient and there is no need for routine lymph node dissection. Chemotherapy with the tyrosine kinase inhibitor imatinib is indicated in metastatic or unresectable tumors when primary resection would carry the risk of severe post-operative functional deficit, metastatic disease or a recurrence after resection (2).

Acknowledgements

The authors thank the faculty, students and staffs of the departments of Pathology and Radiology, Calcutta National Medical College and Hospital, and the S.R.L. Pathology Clinic, India, for providing technical help.

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