Case Report

Gastrointestinal Stromal Tumour (GIST) Presenting as Inguinal Mass - An Unusual Presentation and Literature Review

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ABSTRACT

Gastrointestinal stromal tumours (GISTs) are rare tumours that can arise anywhere in the tubular gastrointestinal tract. This study presented a 45 yr old female with right inguinal mass. On clinical and radiological examination it seemed to be a solitary inguinal node, but FNAC showed benign lymphocytes. After surgical exploration with an aim to do an excisional biopsy it found out to be a malignant GIST arising from small bowel involving to the bladder dome. This case report aimed to describe an atypical presentation of GIST followed by its best treatment and management.

Keywords: Gastrointestinal Stromal tumours (GISTs), Histopathology, Small bowel, Urinary Bladder.

INTRODUCTION

Gastrointestinal stromal tumours (GISTs) are the most common sarcomas of the gastrointestinal (GI) tract.[1] GISTs are found incidentally during surgery as it is asymptomatic. We present a case of GIST presenting as swelling in the right groin mimicking as an isolated lymph node.

Case report

A 45 year old post menopausal lady was initially referred by her GP to surgical oncology outpatient department with right sided groin swelling. The history of the patient was present with a swelling since last 3 year and gradually increasing in size with occasional pain. There was no history of vomiting, bleeding per vagina or rectum nor any increase or decrease in size with coughing. Apart from these she has no co-morbidity. Past history and family history of the patient was uneventful. On examination there was no supraclavicular or axillary node and no pedal edema found in examination by treated clinician. But patient presented a 5x3cm mobile spherical mass at right inguinal region 3 cm lateral to pubic tubercle. Mass was non tender, no impulse on coughing, non-reducible. Skin over the mass was normal and also the mass was free from underlying femoral vessels. No other lymphadenopathy.

Lab investigation of blood parameters were normal and the radiological investigation of ultrasound of groin revealed single necrotic node with small cystic changes. Fine needle aspiration cytology (FNAC) of the node diagnosed as benign lymphocytes. Repeat FNAC showed benign cystic lesion (lymphatic).

After the investigation patient was planned for excisional biopsy and under spinal anaesthesia. The skin crease incision was given to facilitate the operation. On first view mass delivered from medial side but seems to be coming out from deep inguinal ring with some haemorrhagic fluid. Deep inguinal ring was cut and enlarged to deliver the mass but found out it to be mass attached to small bowel and urinary bladder is seemed to be pulled along with it, which increases the surgical dilemma. Then surgeons planned for laparotamy and immediately consent been taken from patient caretakers. On laparotomy it was found mass arising from small bowel 21 cm from ileocaecal junction and involving right side dome of urinary bladder [fig-1].

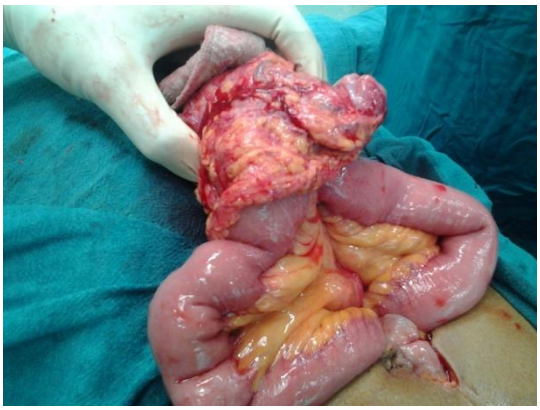

Figure 1: laparotomy

Formal R0 resection done with cuff of bladder was taken. Small bowel end to end anastomosis was done with bladder primary closure. Patient recovery was uneventful and discharged on 9th post operation day. Microscopically feature consistent with GIST of small bowel and bladder wall involvement was positive (only outer layer mucosa is free) found from grossly mass of 5cm x 6cm x 1.5cm [Fig-2].

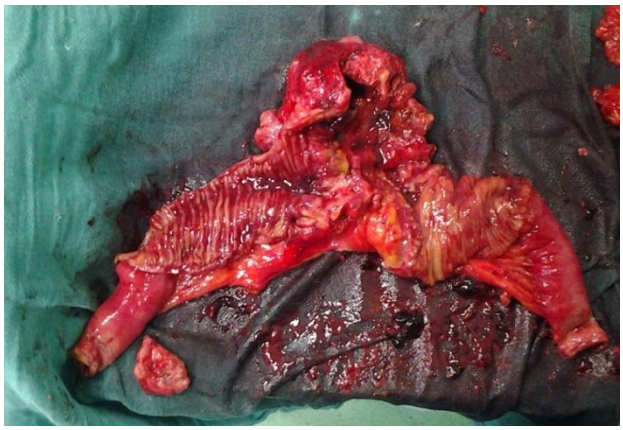

Figure 2: R0 resection

Mitosis <5/50 hpf. Immuno-histochemistry panel revealed that CD117 strongly +ve, CD34 +ve, Vimentin weakly +ve, Ki67 is 9% [Fig-3].

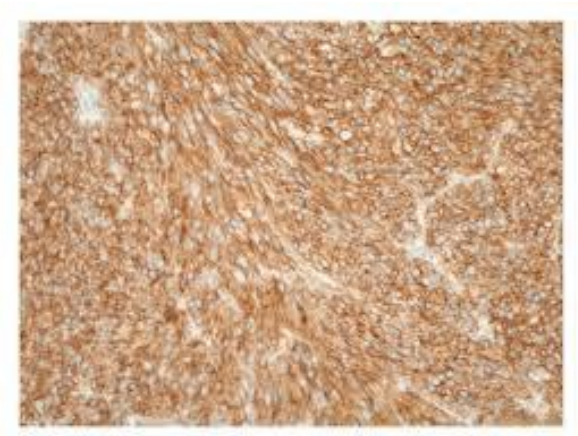

Figure 3: IHC SHOWS CD117 & CD34 positive

The histopathology report of the patient on first follow up visit for metastasis workup was found negative. She was put on imatinib for 1 year & now doing fine.

DISCUSSION

It should be noted that several cases of preoperative diagnosis of GIST is uncommon, due to its rarity and the varying clinical presentation. Although some authors have attempted to retrospectively review the imaging studies of patients with GIST, the radiographic findings of these tumours are very nonspecific, so a preoperative presumptive diagnosis based on imaging is virtually impossible.[2] A focused Pub Med search was undertaken using the terms GIST, unusual presentation, inguinal mass and indirect inguinal hernia. There are case reports of gastric GISTs resulting in hemoperitoneum, generally presenting with acute abdominal pain.[3] GISTs can present in a number of different ways and are often diagnosed incidentally. Large GISTs can cause pain (abdominal discomfort), bloating, early satiety or increased abdominal girth. In GIST, the association of both mass effect and intraluminal bleeding was a commonly symptoms caused by mesenchymal neoplasms. Erosion into the gastrointestinal tract can induce significant haemorrhage causing hematemesis, malena or anaemia from occult bleeding. Dysphagias in the oesophagus, intussusception or intestinal obstruction in the small bowel and biliary obstruction around the ampulla of water have also been noted. Other rare presentations described in the literature include hypoglycaemia[4], abdominal pain due to torsion of an exophytic tumour, presentation as a content in a hernial sac, intraperitoneal bleed[5, 6], mimicking acute appendicitis[7] and pancreatic pseudocyst.[8] GIST as inguinal mass has been reported as indirect inguinal hernia in several case reports till date.[9, 10] Treatment for GIST is primarily surgery with well negative margin.[11] Based on final histopathology adjuvant treatment was decided. The immune-histochemistry expression of CD117 is nearly universal in these tumours.

CONCLUSION

Lesson to be learned from this case study it is presumed that is any irregular mass with some haemorrhagic fluid donot hesitate for converting a formal laparotomy and doing a complete R0 resection. Those that present atypically though should be investigated more vigilantly as they might have some alternate pathology.

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