Abstract:
59 year old male got admitted in our department with history of hematemesis and melena for 2 weeks. He also presented with difficulty in breathing, bilateral pedal edema and anemia. He was on Anti-retroviral treatment for the past 6yrs. Examination of the abdomen revealed mass in the epigastrium. CT scan Abdomen showed an 8X8cm lesion in the fundus and body of stomach suggestive of GISTlymphoma. On endoscopy, there was a bleeding polypoidal growth in the fundus and biopsy from the lesion was suggestive of GISTlymphoma. On intraoperatively, there was a large exophytic growth from the fundus of the stomach obscuring GE junction of stomach. A totally stapled proximal gastrectomy was done. The occurrence of this tumor in an HIV-positive patient is coincidental. This case is presented for different stapling technique for performing proximal gastrectomy. This stapler technique can prevent frequent crossover of needles during surgery and may prevent health hazard to healthcare workers

Keyword: Gastrointestinal stromal tumour, proximal gastrectomy, staplers, C-Kit mutation, CD-4 count.

Gastrointestinal Stromal tumours (GIST) is now proven that it originates from the interstitial cells of Cajal (ICC), given the similar expression of CD34 and CD117 (1). With sensitivity greater than 95% and a high specificity, CD117 immunohistochemistry staining is now widely accepted as a criterion for a pathologic diagnosis of GIST (2). Platelet-derived growth factor receptor alpha (PDGFRA) was identified as an alternative oncogene responsible for activation of the intracellular phosphorylation cascade (3). GISTs are most commonly found in the stomach (50-60% of cases) as compared to small bowel (20%-25%), rectum (5%), and oesophagus (2%). These tumours can grow intraluminally or extraluminally toward adjacent structures. Distant metastases tend to appear late in the course of the disease in most cases. Lymph node involvement is rare, occurring in only 0-8% of cases.
Upper GI bleeding is the most common clinical manifestation of gastrointestinal stromal tumours (GISTs), manifesting as hematemesis or melena in 40-65% of patients. Other symptoms may include abdominal pain, anorexia, nausea, vomiting, weight loss, epigastric fullness, and early satiety. It is not unusual for asymptomatic GISTs to be diagnosed during workup for other tumours or during endoscopy. CT abdomen is a common method for initial diagnosis and is often conclusive enough to forego preoperative biopsy and is also useful for its staging. Another common method of diagnosis is by endoscopy for evaluation of upper GI symptoms. It may demonstrate a firm, smooth, yellowish sub mucosal mass. Endoscopic ultrasound (EUS) may aid in the differentiation of a sub mucosal gastric mass versus impingement from surrounding organs. EUS-guided biopsy is more accurate.

Most staging systems employ the 3 most important survival predictors—tumor size, histologic grade, and presence or absence of distant metastatic disease. The new criteria for risk stratification of primary GIST, incorporated into the AJCC staging is by mitotic index (5 or less or more than 5 per 50 HPF) and then further divided by tumor size, nodal disease, and tumor metastasis. Despite the proven success of imatinib and other newer tyrosine-kinase inhibitors, surgical resection remains the treatment of choice and offers the only chance for cure from GIST. Routine lymphadenectomy is not indicated, as lymph node involvement is very rare. Even though the GIST tumour is completely excised with an R0 resection, recurrence rates appear linked to tumour biology and are most closely linked to the tumour size and mitotic rate. Approximately 40% to 50% of completely resected primary GISTs will recur.

Our patient, a 59 year old gentleman was admitted with 2 weeks history of hematemesis and melena. He presented with difficulty in breathing, bilateral pedal edema and anemia. He was on Anti-retroviral treatment for the past 6yrs. His CD-4 count was 551 and Hb-4 g%. He was severe pallor on general examination. Abdominal examination revealed a mass lesion in epigastric region. CECT Abdomen showed an 8X8cm lesion in the fundus and body of stomach suggestive of? GIST,? Lymphoma.

On endoscopy, there was a bleeding polypoidal growth in the fundus and biopsy from the lesion was suggestive of GIST. 8 units of blood were transfused preoperatively. Intra operatively, there was a large exophytic growth from the fundus of the stomach obscuring GE junction. Liver found to be normal. There
were no pelvic or peritoneal deposits & no ascites. Short gastric vessels were divided with care between ligatures and harmonic scalpel to prevent splenic capsular tear. GE junction was dissected out and about 6cm of lower esophagus was mobilized. Left gastric vessels and feeding vessels to the tumor were ligated and divided. Proximal gastrectomy was planned. Gastrostomy was made in the anterior wall of stomach distal to growth. Anvil of SDH 25 with a long silk stay suture was introduced through the gastrostomy and passed into the esophagus just proximal to GE junction above the level of proposed area of transaction. Esophagus was transected just proximal to GE junction using contour. Now SDH-25 was introduced through the same gastrostomy and the shaft is pierced through the posterior wall distal to the proposed line of transaction in the stomach. The corresponding part of the anvil was brought through the anterior wall of the esophagus and the stapled anastomosis of esophagus and stomach was completed using circular stapler. The distal transaction in the Stomach was completed using the linear cutter 75mm (2 blue cartridges) and specimen was removed. Thus the resection and anastomosis was done without hand sewn anastomosis and it reduces the time under anesthesia in an anemic patient. It was also helpful to avoid unnecessary needle pricks during surgery in retroviral disease patient. Abdomen was closed in layers after achieving perfect hemostasis. Post-operative period was uneventful. By using this stapler technique, we can prevent frequent crossover of needles during major surgery. It can also reduce operating time, standardization of procedure and may prevent health hazard to healthcare workers.

Histopathology was reported as Gastro intestinal stromal tumor of size 12X10X5cm, with 4-5 mitosis per high power field & high grade. Patient was started on imatinib 400 mg orally as adjuvant setting and was on follow up.

References:


