Original Research Paper

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Surgery

"SURGICAL MANAGEMENT OF GIST – OUR EXPERIENCE"

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ABSTRACT Gastrointestinal stromal tumors have been recognized as a biologically distinctive tumor type, arising from interstitial cells of Cajal[1] (pacemaker of intestinal motility). 95% are positive for CD117 c-kit mutation.
This review summarizes our current knowledge about the molecular biology, diagnosis and surgical management in 14 cases of GIST diagnosed at Govt. General Hospital, Kurnool from June 2014-16

KEYWORDS : GIST, Interstitial cells of Cajal, CD117

INTRODUCTION

Gastrointestinal stromal tumors (GIST) represent 85% of all mesenchymal neoplasms of the GIT

- Recently diagnosed tumors in 1980s based on immunohistochemistry positive for c-Kit CD117 (95%), PDGFRA, CD34, DOG1 etc…
- Most commonly arise from the stomach (50-60%) followed by small bowel (20-30%)
- Imatinib and sunitinib play an important role in adjuvant and neoadjuvant therapy

METHODS AND DESIGN

Aim : To review the presentation, investigation modalities, management strategies and prognosis in cases of GIST presenting to Government General hospital, Kurnool from June 2014 to June 2016.

Place of study: Government General Hospital, Kurnool
Method: Retrospective analysis
Study Period: June 2014 to June 2016

Total number of patients studied: 14

Data obtained for all relevant 14 cases included demographics & clinical features (sex, age, symptoms, surgical approach & survival)

CECT was performed in all 14 patients, which demonstrated accurately the location and extent of the tumors

Upper GI endoscopy was performed in 8 patients. 1 patient underwent EUS to evaluate feasibility of resection

RESULTS

- 14 ases of GIST were identified at GGH, Kurnool between June 2014 –June 2016
- Mean age at diagnosis was 56.5yrs (range 38-72yrs) M : F ratio = 2.5 : 1 (10 M /4 F)

The chief presenting symptoms were as follows :

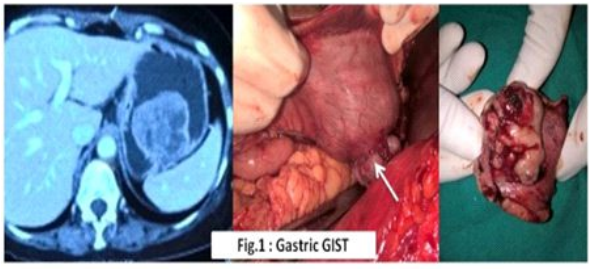
PRESENTING SYMPTOMS	No. of cases	%
UGI bleeding / Anemia	6	42.8 %
Vague abd. pain	8	57.1 %
Palpable mass P/A	5	35.7 %
Jaundice	1	7.1 %
Constipation	1	7.1 %
Dysphagia	1	7. 1 5

Few patients had associated co-morbidities like:

Comorbidities Coronary artery disease on Anticoagulants	2
Diabetes mellitus	5
Hypertension	4

Details of tumor location and the surgery performed are as follows:

Tumor Location	No. of Cases	%	Surgery
Stomach	8	57.1	Subtotal Gastrectomy
Duodenum	1	7.1	Whipple's Pancreatico-Duodeenectomy
Jejunum	2	14.2	Segmental Resection & Anastomosis
Ileum	1	7.1	Segmental Resection & Anastomosis
Colon	1	7.1	Rt. Hemicolectomy
Esophagus	1	7.1	Vats Esophagectomy + Gastric Pull Up



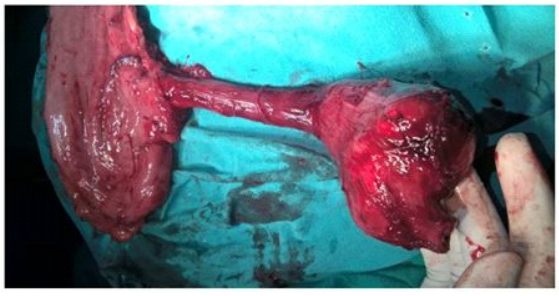
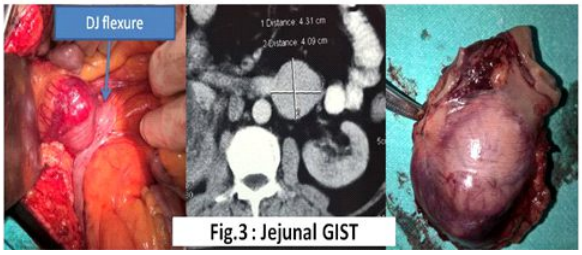


Fig.2 : Esophageal GIST→ VATS esophagectomy



DISCUSSION

GISTs are rare tumors that may arise anywhere in the tubular gastrointestinal tract (stomach being the most common site)[2], typically diagnosed in people between 50-70 yrs of age.

- Most common presenting symptom in our series were - abdominal pain (8/14)[57%] and UGI bleeding (6/14) [42%]
- Diagnosis was established by CECT, UGI endoscopy, EUS

- Stomach was the most common site 8/14 [57 %]
- The mean size of these tumors was 5.8 cm (range 4-14cm)
- Complete resection was achieved in all cases
- 1 patient with colonic GIST was found to have ruptured GIST with hemoperitoneum and diffuse intraperitoneal seedling. Rest of the 13 patients did not have any evidence of metastasis
- Based on histopathology, tumor size, location & mitotic rate as per Fletcher's risk stratification[3] 1 patient very high risk, 4 pts high risk, 5 pts intermediate risk & 4 pts had low risk of recurrence / metastasis
- Adjuvant Imatinib therapy was started in 10 patients
- Follow up : CT scan every 3 months in patients with moderate / high risk
- Mean follow up 4.5 months (range 3-18 months)
- Recurrence : occurred in 3 cases with high grade malignancy within 1 yr. Rest of the 10 cases are disease free 2yrs on follow up
- Mortality : 1 patient with Colonic GIST (diffuse peritoneal deposits) died 2 months later.

CONCLUSIONS

- GISTs vary considerably in their presentation, clinical course & pathological behaviour
- Gastric GISTs are the most common type & can present with UGI bleed in patients on anticoagulants
- Tumor rupture with hemoperitoneum is rare
- The mainstay of treatment is complete surgical excision ± adjuvant Imatinib therapy for high risk GISTs
- In the light of tendency of these tumors to pursue an indolent clinical course with a significant risk of late relapse, a brisk follow-up is advocated for all patients

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