

GASTROINTESTINAL STROMAL TUMOURS

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Gastrointestinal stromal tumours (GISTs) may arise in any part of the gastrointestinal tract but 50% will be found in the stomach. Previously named leiomyoma and leiomyosarcoma, the term GIST is now used, recognising the distinct phenotype. They are tumours of mesenchymal origin and are observed equally commonly in males and females. The tumours are universally associated with a mutation in the tyrosine kinase c-kit oncogene. These tumours are sensitive to the tyrosine kinase antagonist imatinib, and an 80% objective response rate can be observed. Tumours with mutations in exon 11 of are particularly sensitive to this drug. The biological behaviour of these tumours is unpredictable but size and mitotic index are the best predictors of metastasis. Peritoneal and liver metastases are most common but spread to lymph nodes is extremely rare. The incidence of the condition is uncertain as small stromal tumours of the stomach are probably quite common and remain unnoticed. Clinically obvious tumours are considerably less common than gastric cancer. GISTs constitute 1–3% of all gastrointestinal neoplasia. Many GISTs are noticed incidentally at endoscopy or diagnosed if the overlying mucosa ulcerates with bleeding and anaemia (Figure 67.32). Because the mucosa overlying the tumour is normal, endoscopic biopsy can be uninformative unless the tumour has ulcerated. Targeted biopsy by endoscopic ultrasonography is more helpful. Larger tumours present with non-specific gastric symptoms, and, in many instances, they may be thought to be gastric cancer initially (Figure 67.33). As the biological behaviour is difficult to predict, the best guide is to consider the size of the tumour. Tumours over 5 cm in diameter should be considered to have metastatic potential. If easily resectable surgery is the primary mode of treatment. Smaller tumours can be treated by wedge excision although the appropriate management of asymptomatic diminutive tumours found incidentally at endoscopy is unclear. Larger c-kit tumours may require a gastrectomy or duodenectomy, but lymphadenectomy is not required. Larger tumours that require multivisceral resection may be better treated with 3–6 months of imatinib prior to operation as this will usually radically reduce the size and vascularity of the tumours. Adjuvant imatinib for resected tumours of high malignant potential should probably be continued indefinitely. The prognosis of advanced metastatic GISTs has been dramatically improved with imatinib chemotherapy of metastases has an important role.

Figure 67.32 Gastrointestinal stromal tumour (GIST) on the greater curve of the stomach with ulceration. Figure 67.33 Computed tomography scan of the upper abdomen showing a 3.5-cm gastrointestinal stromal tumour arising from the gastric wall.

Unlike gastric carcinoma, the incidence of lymphoma seems to be increasing. It is most common in the sixth decade and presentation is similar to that of gastric cancer. Acute presentation with haematemesis, perforation or obstruction is uncommon. Primary gastric lymphoma accounts for

approximately 5% of all gastric neoplasms. It is important to distinguish primary gastric lymphoma from the more common involvement of the stomach in a diffuse lymphoma. Primary gastric lymphomas are B-cell derived, the tumour arising from mucosa-associated lymphoid tissue (MALT). Primary gastric lymphoma remains in the stomach for a prolonged period before involving lymph nodes. At an early stage, the disease takes the form of a diffuse mucosal thickening, which may ulcerate. Diagnosis is made as a result of the endoscopic biopsy and seldom on the basis of the endoscopic features alone, which are not specific. Following diagnosis, adequate staging is necessary, primarily to establish whether the lesion is a primary gastric lymphoma or part of a more generalised process. CT scans of the chest and abdomen and bone marrow aspirate are required. Although the treatment of primary gastric lymphoma is somewhat controversial, it seems most appropriate to use surgery alone for localised disease. Chemotherapy is appropriate for patients with systemic disease. Lymphocytes are not found to any degree in normal gastric mucosa but are found in association with Helicobacter infection. Early gastric lymphomas may regress and disappear when the Helicobacter infection is treated. Patients with gastric involvement of a diffuse lymphoma are treated with chemotherapy, sometimes with dramatic and rapid responses. The two common surgical complications are bleeding and perforation. Both may follow the chemotherapy when there is rapid regression and necrosis of the tumour and normally require gastrectomy.

Revision #1

Created 2025-12-31 15:24:57 UTC by Omar Ayman

Updated 2025-12-31 15:24:57 UTC by Omar Ayman