Laparoscopic Resection of a Gastric Plasma Cell Granuloma: A Case Report

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Introduction
Plasma Cell Granuloma, also known as inflammatory myofibroblastic tumour or inflammatory pseudo-tumour, is a non-neoplastic process characterized by an unregulated growth of inflammatory cells. It most commonly occurs in the lung and upper respiratory tract, and only six other cases of gastric plasma cell granuloma exist1. There are no other cases of intra-gastric laparoscopic resection of this type of lesion. Here, we present a case of a 60 year-old gentleman who had gradual onset epigastric discomfort, and was thought to have a gastro-intestinal stromal tumour on gastroscopy. Subsequent imaging and endoscopic-guided extra-gastric laparoscopic resection of the lesion confirmed the presence of a plasma cell granuloma. We discuss the aetiologies, presentation, investigation and treatment of this rare disorder, and make recommendations on the management.

Case Study
A 60 year-old gentleman presented with gradually worsening epigastric discomfort and weight loss over a six-month period. Due to continuing symptoms following anti-reflux therapy, an urgent oesophago-gastro-duodenoscopy was arranged. An ulcerated lesion was demonstrated in the proximal lesser curvature of the stomach, which was thought to be a gastrointestinal stromal tumour (GIST) due to its appearance. An urgent double-contrast CT scan (figure 1) of the abdomen was arranged. This demonstrated a 36mm by 34mm sub-mucosal circumscribed lesion high on the lesser curvature of the stomach, in close proximity to the gastro-oesophageal junction, without any evidence of hepatic, pulmonary or bony metastasis. A staging laparoscopy revealed minor serosal involvement, but no obvious extra-gastric component. Surgery was suggested as the best option, due to the likelihood of a diagnosis of GIST. An extra-gastric laparoscopic resection was performed within four weeks of the initial presentation (figure 2). This was chosen over a proximal gastrectomy in order to conserve the organ and preserve the anti-reflux function. A 70 x 40 x 20mm specimen was excised and sent for histopathology. The patient had an uneventful recovery, and was discharged from hospital after 5 days.

Discussion
There is very little data on the aetiology, pathogenesis and the most effective treatment for this disorder, therefore the prognosis of the condition is difficult to predict. The most common treatment for these lesions is complete excision, although this is not always possible. Radiotherapy2 and steroid therapy3,4 has been suggested, with a few isolated successes, however further data is needed before these therapies can be safely advocated as an alternative to excision.

Non-neoplastic tumours of the stomach are rare, and can present with very similar symptoms to malignant lesions, such as epigastric discomfort and microcytic anaemia. The diagnosis should be kept in mind, especially for solitary lesions with no evidence of metastases. Due to the rarity of gastric plasma cell granuloma, each new case should be recorded and followed up to allow a better understanding of the condition. We advocate the use of laparoscopic resection of these lesions in order to provide a diagnosis and avoid complications associated with more extensive surgery, such as bleeding, loss of organ function and acid reflux disease.

References