

Case Report

An Unusual Cause of Melena: Brunner's Gland Hyperplasia

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Introduction

Brunner's gland hyperplasia is a rare and benign lesion of the duodenum, which generally has a good prognosis although some cases of association with adenocarcinoma have been described. Its clinical presentation is quite variable, ranging from an asymptomatic condition to abdominal pain, intestinal obstruction, gastrointestinal hemorrhage, and occasionally the mimicking of a duodenal malignancy.

Case Presentation

A 43 year-old-woman was admitted at the emergency ward for melena. Her history was unremarkable, and she was not taking any medication. The physical examination was not remarkable and the blood count found a haemoglobin level of 6.9g/dl. Esophagogastroduodenoscopy showed a large ulcerative mass located from the first to second portion of the duodenum (Figures 1a). Endoscopic ultrasonography displayed a 48mm isoechoic tumor with cystic change arising from the submucosal layer (Figure 1b). Abdominal computed tomography confirmed the round mass with internal multifocal low densities in the proximal duodenum without distant lesion (Figures 1c). Repeated endoscopic biopsies were not contributive. A gastrointestinal stromal tumor (GIST) was suspected and a partial duodenectomy was performed. A cross-section of the specimen showed a well-circumscribed, nodular mass including fibrous septa (Figure 2a). Figure 2b shows a histologic section of the mass stained with hematoxylin and eosin. Pathologic analysis retrieved a nodular proliferation of normal Brunner's glands separated by fibrous septa at the junction of the duodenum, confirming the diagnosis of Brunner-gland hyperplasia (Figures 3a, 3b). There was

Abstract

A 43 year old woman presented melena with severe anemia without particular medical history or medication intake. Esophagogastroduodenoscopy showed a large ulcerative mass located from the first to second portion of the duodenum. Endoscopic ultrasonography and the abdominal computed tomography described a 5cm mass with a tumoral aspect. A gastrointestinal stromal tumor (GIST) was suspected and a partial duodenectomy was performed. Finally the pathological concluded to the diagnosis of Brunner-gland hyperplasia.

no surgical complication and the patient had a complete resolution of her symptoms.

Discussion

Brunner's gland is an alkaline-secreting gland that is usually located in the deep mucosa or submucosal layer of the duodenum. Brunner's gland hyperplasia/adenoma is a benign neoplasm with an unknown exact pathogenesis. Malignant transformation was exceptionally reported, with overexpression of P53 and MIB1 demonstrated in a single patient [1]. Clinical presentation involves a large spectrum of

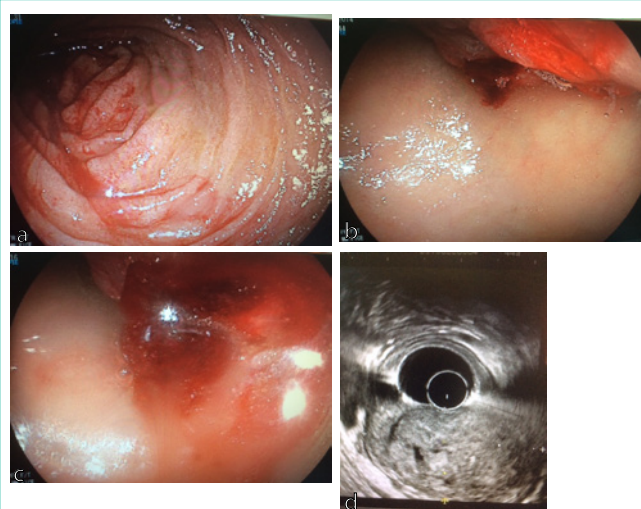


Figure 1a to 1d: Esophagogastroduodenoscopy (1a to 1c) and endoscopic ultrasonography (1d) showing the duodenal mass.

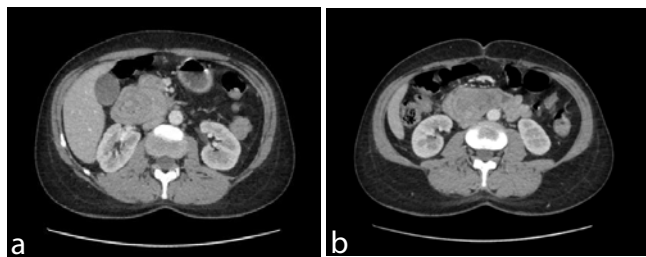


Figure 2a and 2b: Abdominal computed tomography showing the mass without distant lesion.

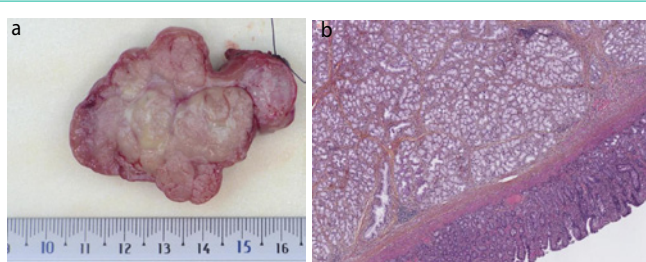


Figure 3a and 3b: Cross and histologic section of the surgical mass stained with hematoxylin and eosin.

digestive symptoms and rare complications include gastrointestinal bleeding and obstruction. Misdiagnosis may be frequent given the pseudo-tumour presentation, and this may be reinforced by the tumour's high avidity for ^{18}F -fluorodeoxyglucose [2,3]. The great majority of duodenal mesenchymal tumors are GISTs and local resection is an adequate management [4]. Only a deep endoscopic or a surgical biopsy provides adequate tissue for diagnosis, as Brunner's

glands are located in the submucosa. Endoscopic ultrasound with fine needle aspiration may help to get a correct diagnosis and avoid overtreatment [5]. In symptomatic patients with large lesions, limited surgery is the main therapeutic modality but endoscopic resection most likely represents a reasonable alternative when the tumour is small or pedunculated [6].

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GL and AL drafted the manuscript.

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