A 64-Year-Old Male with Recurrent Brunneroma

A Case Report

Delvise T. Fogwe, M.D[1]; Raya Abu Tawileh[2]; and Robert E. Sedlack, M.D., M.H.P.E[3].

1: Department of Internal Medicine, Mayo Clinic, Rochester, MN.
2: The University of Jordan School of Medicine, Amman, Jordan.
3: Division of Gastroenterology, Mayo Clinic, Rochester, MN

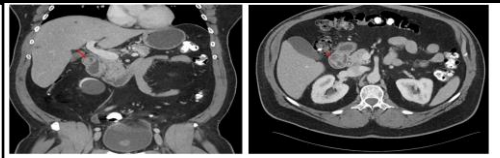

Figure: CT-Abdomen and pelvis: heterogenous polypoid duodenal mass (red arrow) measuring approximately 4 cm that extend from the pylorus into the duodenum

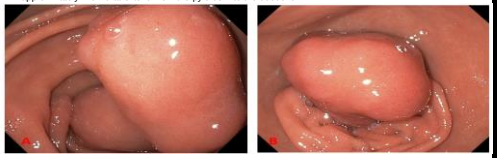

Figure 2: (A) &(B) Upper endoscopy showing large tan-pink polypoid mass prolapsing from the

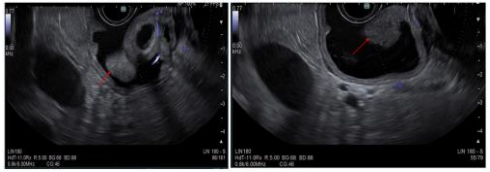

Figure 3: Endosonographic imaging in the duodenal bulb showed no intramural (subepithelial) lesion. The polyp appeared mucosal, on a stalk with a cystic component.

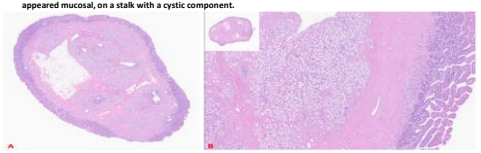

Figure 4: Duodenum (A) Photograph of H&E stain at low magnification showing Brunner gland hyperplasia with benign cysts arising from cystic dilation of the Brunner gland ducts. (B) Photograph of H&E stain at medium magnification showing Brunner gland hyperplasia.

INTRODUCTION

- Brunneroma (also termed Brunner's gland hyperplasia, adenoma, or hamartoma) is a rare benign tumor arising within the alkaline-producing exocrine glands located in the submucosal layer of the duodenum.
- Most patients with brunneroma are asymptomatic, but others may present with gastric obstruction-like symptoms or upper gastrointestinal bleed.
- Less than 200 cases have been reported.
- We present a case of a patient with recurrent Brunneroma.

CASE DESCRIPTION

- A 64-year-old male was evaluated for intermittent achy abdominal pain in the umbilical region associated with postprandial bloating and early satiety.
- He had a similar presentation twelve years ago and underwent esophagogastroduodenoscopy (EGD), which showed a 3 cm polypoid mass within the duodenal bulb.
- The mass was removed endoscopically through snare polypectomy and Roth basket retrieval, leading to the resolution of his symptoms.
- Abdominal CT scan showed a 4-cm heterogenous polyp in the duodenum (Figure 1).
- Given his previous history, an EGD was obtained, which showed a 4 cm tan-pink polypoid mass prolapsing from the duodenal bulb through the pylorus into the stomach (Figure 2, A & B).
- Endoscopic ultrasound revealed a mucosal mass on a stalk with a cystic component and no submucosal involvement (Figure 3).
- He was evaluated by an advanced endoscopist and felt the mass was appropriate for endoscopic removal. Therefore, an Endoloop was placed around the mass initially with the base injected with epinephrine and then removed with cautery, placing a clip on the base afterward.
- Removal of the mass led to the resolution of his symptoms.
- The pathology report demonstrated Brunner gland hyperplasia, a benign metaplastic cysts arising from Brunner gland ducts, and no dysplasia (Figure 4, A & B).

DISCUSSION

- Brunner's gland is located in the proximal part of the duodenum above the hepatopancreatic sphincter.
- The mechanism Brunneroma remains unclear, but increase acid secretion, inflammation, and helicobacter pylori has been proposed.
- Brunneroma incidence is grossly underreported, and no case of recurrence has been reported.

TAKE HOME POINTS

- It is a benign lesion but may be confused with duodenopancreatic malignancy necessitating removal for pathologic confirmation.
- There is currently no consensus regarding surgical versus endoscopic management of Brunneroma. However, there is increasing endoscopic utilization avoiding a more invasive surgical procedure.