

## An Unexpected Finding: Neuroendocrine Neoplasm in the Descending Duodenum

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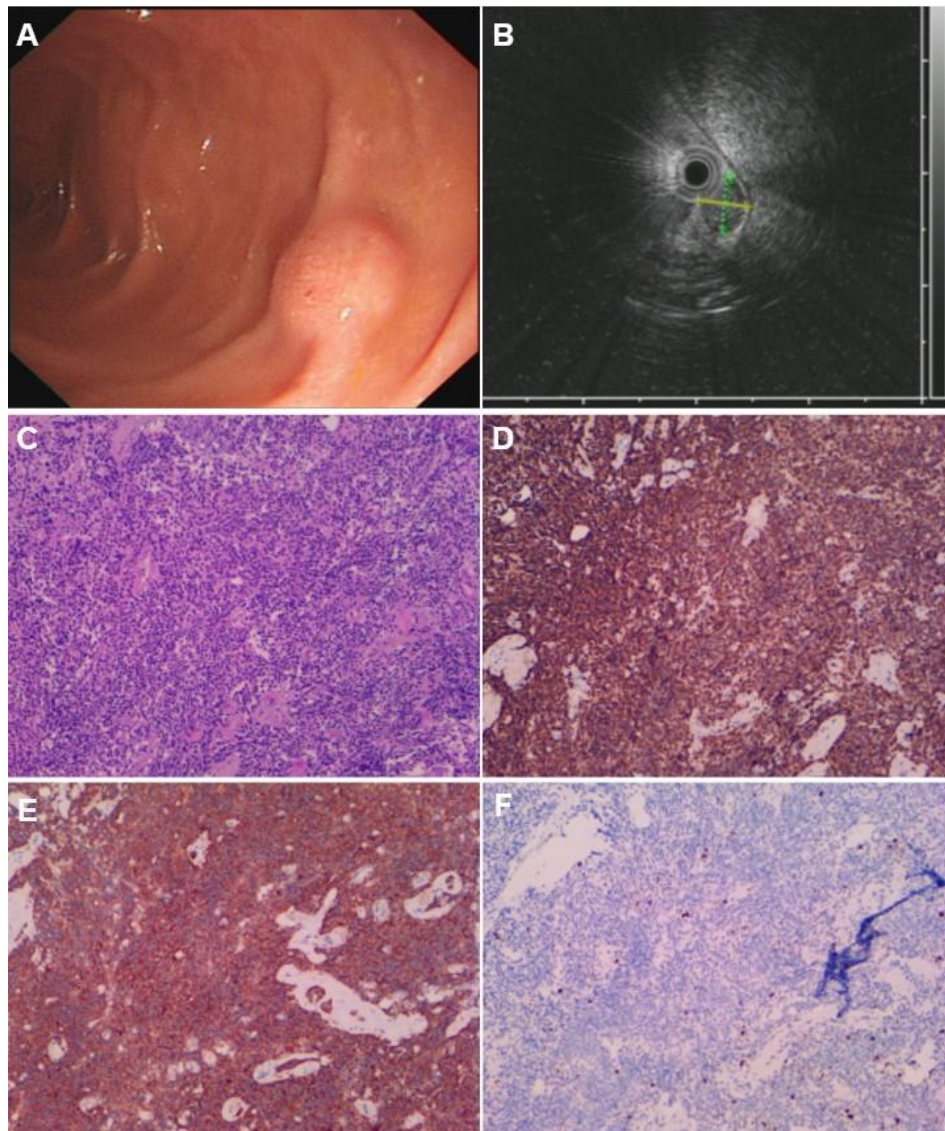
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### Clinical Image



Figures A-F

A 51-year-old female was admitted to the gastroenterology clinic in October 2020 because of a 2-year history of epigastric pain unrelated to food intake. No diarrhea was noted. Her documented medical history was notable for well-controlled hypertension. Her physical examination and *Helicobacter pylori* antigen detection showed no remarkable abnormalities. A computed tomography scan of the abdomen revealed a 0.5 x 0.5 cm well-defined hyperattenuating structure in the wall of the descending duodenum, which was confirmed by esophagogastroduodenoscopy demonstrating a 0.5 cm nodule in the descending duodenum (Fig. A). The lesion was located within the deep mucosa and submucosa without invasion of adjacent structures detected by endoscopic ultrasound (Fig. B). Endoscopic submucosal dissection was performed to remove the nodule despite the high risk for postoperative complications. Microscopic examination of the specimen by hematoxylin and eosin staining (Fig. C) and the lesion staining strongly immunoreactive for synaptophysin (Fig. D) and chromogranin (Fig. E) by immunohistochemistry were consistent with a well-differentiated grade 2 neuroendocrine neoplasm, which was further defined by a low proliferation index Ki67 around 3% in neoplastic cells (Fig. F). No etiology for patient's epigastric pain was discovered on esophagogastroduodenoscopic examination. Duodenal neuroendocrine tumors consist of 2% of all gastrointestinal neuroendocrine tumors and 1% of all duodenal tumors, which are very rare (Baliss *et al.*, 2021). The rarity of duodenal neuroendocrine tumors coupled with the absence of neuroendocrine clinical syndromes creates a noteworthy diagnostic challenge (Delle *et al.*, 2016). Patients with nonfunctional and nonmetastatic duodenal neuroendocrine tumors should be considered for resection regardless of tumor size (Sato *et al.*, 2016).

## References

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