Gastrointestinal stromal tumor in the duodenal blind spot : role of pediatric colonoscope and endoscopic ultrasound

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To the Editor,

We read the article titled "*An unusual cause of upper gastrointestinal bleeding : duodenal GIST. A case report and literature review*" published in June 2011 issue of *Acta Gastro-Enterologica Belgica* with much interest (1). Gastrointestinal stromal tumors (GIST) account for 0.1-3% of gastrointestinal tumors with an annual incidence of 10-15 per million people (2). Mostly presenting as gastrointestinal bleeding (GIB), over two-thirds of GISTs are located in stomach and, therefore, easily detected with a gastroscope. As *Mehta and colleagues* have pointed out, GISTs located in the 3rd and 4th parts of duodenum are beyond the reach of gastroscope and require push enteroscopy for their detection. We describe a case of obscure GIB where a routine gastroscope twice failed to visualize a mucosal bulge located at the junction of 1st and 2nd parts of duodenum located otherwise well within the working length of gastroscope. A push enteroscopy performed with a pediatric colonoscope was able to visualize an abnormality, likely due to its wider field of view and angulation. A 57 year old man was hospitalized with one week of dyspnea, palpitations and melana. There was no history of peptic ulcer disease or NSAID use. Physical examination showed tachycardia, melena in rectum and was otherwise normal. Laboratory findings were remarkable for hemoglobin of 7.4 g/dl (range : 14-18 g/dl). Gastroscopy revealed only mild non erosive gastritis and no bleeding. Given high index of suspicion for upper GIB, a push enteroscopy with a pediatric colonoscope was performed in the same setting. It was grossly unremarkable, but on withdrawal a subtle bulge was noted in the duodenal genu. A colonoscopy revealed mild diverticulosis and melena in terminal ileum further substantiating that the source of bleeding is likely upper GI tract. Next we performed endoscopic ultrasound (EUS) to evaluate the bulge in the duodenum. A repeat gastroscopy performed prior to EUS still failed to visualize the bulge even though it was seen on a prior push enteroscopy. EUS revealed a 27 × 18 mm vascular, hypoechoic mass arising from the muscularis propria in the post bulbar duodenum, consistent with a stromal neoplasm (Fig. 1 and 2). Fine needle aspiration confirmed it to be gastrointestinal stromal tumor. Patient underwent a local resection confirming a low grade GIST without requiring Whipple's operation. Patient is doing well at one year after resection with no recurrence of bleeding. A capsule endoscopy performed later was negative. We surmise

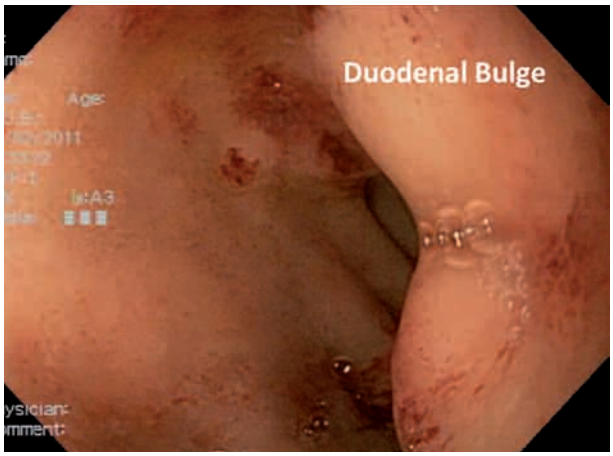

Fig. 1. — Oblique viewing EUS scope showing a duodenal bulge at the genu of duodenum.

Fig. 2. — EUS showing a hypoechoic mass arising from muscularis propria corresponding to the duodenal bulge.

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that duodenal genu area is a particularly challenging and unstable location for endoscopists and can be viewed as a "blind spot". A forward viewing gastroscope with a narrow viewing angle may occasionally miss important findings at this location. A pediatric colonoscope with a wider viewing angle can be helpful in such cases and can prompt the use of EUS to establish diagnosis.

References

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