

Metastatic pancreatic cancer presenting as a bleeding duodenal ulcer 30 months after initial diagnosis of duodenal ulcer. Should duodenal ulcers be biopsied or followed up with repeat endoscopy ?

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Dear Sir,

Management of duodenal ulcer (DU) includes correction of underlying cause and a course of proton pump inhibitors for ulcer healing. In patients with *Helicobacter pylori* related DU, *H. pylori* should be eradicated. In patients with non-steroidal anti-inflammatory drugs (NSAIDs), NSAIDs should be stopped or switched to a COX-2 inhibitor if possible (1). Unlike gastric ulcer, most management guidelines do not recommend routine biopsy of the ulcer edge to exclude, nor follow-up endoscopy to document healing (1-2). We report a patient who presented with a duodenal bulb ulcer associated with *H. pylori*, who was treated but defaulted follow-up and subsequently presented with an ulcer at the same location, which turned out to be malignant.

A 46 years old male smoker was referred to our department for 2 days of epigastric pain.

On further questioning, he had lost 5 kg over the past 6 months, associated with back pain. Initial electrocardiogram showed ST depression on anterolateral leads, but with normal cardiac enzymes and troponin T level. He was treated as acute coronary syndrome, with aspirin 100 mg om, clopidogril 75 mg om and subcutaneous clexane 0.5 ml bd. However, a few hours after intake of his medication, he developed two episodes of fresh blood hematemesis. Urgent oesophago-gastro-duodenoscopy (OGD) was performed, which showed a large ulcer in duodenal bulb, with large overlying clot and irregular elevated ulcer edge (Fig. 1). Hemostasis was secured with injection of 7 ml of adrenaline at 1:10000 dilution. In view of the elevated ulcer edge, computed tomography of the abdomen was ordered, which showed a pancreatic head tumor invading into the duodenum, with enlarged hilar and para-abdominal lymphadenopathy, peritoneal metastasis, ascites, bilateral pleural effusion, and possibly bony metastasis at lumbar 2-4 vertebral.

Subsequent endoscopic ultrasound confirmed the presence of tumor underneath the duodenal bulb ulcer. Biopsy from the ulcer edge yielded adenocarcinoma. Fine needle aspiration cytology from the ascites yielded metastatic adenocarcinoma. The overall diagnosis was pancreatic head adenocarcinoma with metastasis.



Fig. 1. — OGD done during his current presentation of fresh blood hematemesis, which showed a duodenal ulcer at the duodenal bulb with an adherent clot and irregularly elevated edge.

In view of the metastatic nature of the disease, the patient was treated with palliative external beam radiation therapy, followed by systemic chemotherapy.

Interestingly, on review of the prior hospitalization record, the patient first presented to our department 30 months earlier for epigastric pain. OGD done then showed a large non-bleeding ulcer in duodenal bulb, with no sinister signs such as an elevated edge. Gastric antral biopsy for rapid urease test was positive for *H. pylori*. No biopsy was obtained from the duodenal ulcer edge. The patient was given a week of triple therapy for *H. pylori*.

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eradication, consisting of omeprazole, amoxicillin and clarithromycin, and a repeat appointment in 3 weeks, which he defaulted.

Most management guidelines recommend that biopsy of a duodenal ulcer is not indicated and endoscopy has no role in the usual follow-up of uncomplicated duodenal ulcer (2). Our patient was treated appropriately according to these recommendations when duodenal ulcer associated with *H. pylori* was diagnosed earlier. He was treated with one week of triple therapy, which consisted of a proton pump inhibitor, amoxicillin, and clarithromycin. He however, defaulted follow-up, and the chance to monitor his improvement in symptoms was lost.

When he presented again 30 months later, his ulcer at the duodenal bulb was secondary to the invasion of the pancreatic head adenocarcinoma. The ulcer was similar in location to the DU diagnosed earlier. While serial follow up OGD would be needed for confirmation, we wonder if the duodenal ulcer found 30 months earlier was in fact an early presentation of the pancreatic cancer.

Pancreatic cancer presenting itself as a DU had been described previously (3). But the unusual feature of our case is that our patient presented 30 months prior to the final diagnosis of pancreatic cancer. Median and range of doubling time of pancreatic cancer had been estimated to be 144 (64-255) days (4). Though speculative, it is high-

ly likely that our patient already had pancreatic cancer during his first presentation in 2002, when it presented as a DU. And if diagnosis has been made back in 2002, his pancreatic cancer might still be in the resectable stage. However, given the rarity of the presentation for pancreatic cancer, and high rate (> 80%) of healing in *H. pylori* related DU after eradication therapy, routine biopsy or surveillance endoscopy to document healing of duodenal ulcer is not likely to be cost-effective (5).

We conclude that while current management guidelines do not recommend routine biopsies of DU, gastroenterologists and endoscopists should be aware of the potential pitfall and consider follow up OGD in documenting healing of the DU, especially in elderly patients or patients with persistent symptoms or alarm symptoms.

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