

complication is suspected. In our patient, the infectious process may have been due to possible mucosal damage by previous balloon dilatation and Botox therapies. Whatever the cause of severe esophagitis, CT imaging appearance is predominantly characterized by diffuse esophageal thickening, submucosal edema and mucosal enhancement (3). Benign or malignant tumors of the esophagus are usually manifested on CT imaging by focal, asymmetric thickening of the esophageal wall (2), whereas the wall thickening in esophagi-

tis is concentric and circumferential. Since severe edema and mucosal changes in candida esophagitis may simulate malignancy on endoscopy, as in our patient, CT imaging may be a useful imaging modality by showing diffuse, concentric wall thickening of the esophageal wall against the asymmetric, focal wall thickening in malignancies. Furthermore, possible accompanying pulmonary infestation, which adds diagnostic value for the differential diagnosis of esophageal lesions, may be seen on CT imaging.

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## Proton pump inhibitor and clopidogrel interaction: Is it clinically significant?

*Proton pompa inhibitörü ve klopidoğrel etkileşimi: Klinik olarak önemli mi?*

To the Editor,

Clopidogrel is an antiplatelet therapy that has been approved for the treatment of cardiovascular events with aspirin as a dual antiplatelet therapy. Proton pump inhibitor (PPI) therapy was recommended as a gastrointestinal protection for those patients with dual therapy (1). Clopidogrel is a prodrug that must be converted to its active metabolite by cytochrome P450, mainly 3A4 and 2C19. The active metabolite will inhibit platelet aggregation by binding irreversibly to the platelet P2Y<sub>12</sub> receptor. However, variation in response to clopidogrel has been observed due to genetic mutations in CYP2C19 (\*2, \*3, \*4, and \*5), which will lead to

clopidogrel resistance. Such variation may lead to increased risk of cardiovascular events in patients undergoing percutaneous coronary angioplasty (PCA) intervention (2). PPI therapy is a competitive inhibitor of CYP2C19, which will diminish the activity of clopidogrel. It has been observed in several randomized trials through measuring the platelet function assay, which led to the Food and Drug administration (FDA) warning that omeprazole reduced the antiplatelet effect by 50% (3). The first double-blind randomized trial was conducted to assess the effect of the interaction between clopidogrel and omeprazole on cardiovascular events.

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**Manuscript received:** 16.06.2010 **Accepted:** 21.09.2010

doi: 10.4318/tjg.2011.0315

Patients (n=5000) with acute coronary syndrome or undergoing PCA were randomized to clopidogrel alone or clopidogrel and omeprazole. Unfortunately, the trial was stopped due to financial issues. However, the preliminary result showed no dif-

ference in the cardiovascular events between the two groups (4).

In conclusion, PPI therapy should be considered in patients on dual antiplatelet therapy who are at risk of gastrointestinal bleeding.

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## Gastric hematoma complicating routine biopsies

*Rutin biyopsileri komplike eden gastrik hematom*

*To the Editor,*

Generally, mucosal biopsy of the gastrointestinal tract is considered to be safe with very few complications reported. Gastric hematoma post-biopsy is surprisingly rare despite the number of procedures carried out (1,2).

A 71-year-old female presented with the passage of melanic stool and abdominal pain. Significant comorbid condition included ischemic heart disease, atrial fibrillation, chronic hepatitis B infection, and renal failure. Her medications included clopidogrel. On examination, she had general pallor and hepatosplenomegaly. She was otherwise hemodynamically stable. Rectal examination showed melanic stool. Investigations showed anemia (Hb 9.0 g/dl, range 12-16.0) and thrombocytopenia ( $72 \times 10^9/L$ , range 150-550). Liver profile showed mild hypoalbuminemia (32 g/dl, range 35-50). The clot-

ting profile was normal. Ultrasound scan showed hepatosplenomegaly and thickened gastric wall. Endoscopy showed gastritis and thickened antral folds. Three biopsies were taken from the folds (FB-25KR-1, open forceps diameter of 5 mm, Olympus®, Japan). This was complicated by mild oozing that settled with adrenaline injections. The patient later had a large hematemesis. Emergency endoscopy showed fresh blood and a large bluish swelling in the antrum. As she was stable, she was managed with blood and fresh frozen plasma transfusions. A computed tomography scan showed a large submucosal hematoma arising from the antrum to the mid-body of the stomach (Figure 1). Report of biopsies showed congested submucosal vessels with some hyalinosis and blood clots, sparse glands and fibromuscular hyperplasia, con-

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**Manuscript received:** 15.09.2010 **Accepted:** 10.02.2011

*doi:* 10.4318/tjg.2011.0324