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**Journal**

Proceedings of UCLA Health, 21(1)

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**Publication Date**

2017-08-07

## CLINICAL VIGNETTE

# A Case of Dabigatran Esophagitis

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A 60-year-old male with a history of coronary artery disease and hypertension presented to the Emergency Department complaining of 3 days of progressively worsening, severe burning chest pain with difficulty swallowing both solids and liquids. Per patient, any attempt at swallowing food or drink caused severe mid-chest wall pain associated with diaphoresis. It always felt like there was something stuck in his chest. He denied abdominal pain but did note black stools in the 2 days prior to admission. There was no melena or bright red blood per rectum. The patient denied any shortness of breath, vomiting or radiation of his chest pain. His symptoms were not typical of his prior myocardial infarction ten years earlier which resulted in a right coronary stent.

The patient was recently seen in the same Emergency Department six days prior for acute left leg pain with associated redness and swelling. These symptoms had started a day after returning from an overseas trip to Eastern Africa. He had been diagnosed with a left lower extremity deep vein thrombosis extending from the popliteal vein into the femoral vein. As a matter of convenience for this patient because of his frequent business trips, he was started on dabigatran. After his first dose, he immediately noticed some mid-chest discomfort that lasted 2-3 hours and only improved after drinking lots of water. His symptoms progressively worsened over the next few days and most often occurred after taking his dabigatran.

The patient had a negative work-up in the Emergency Department including normal serial electrocardiogram, chest x-ray and lab work. He was subsequently admitted to the Internal Medicine ward for further evaluation of dysphagia and odynophagia. The following day, the patient had an esophagogastroduodenoscopy (EGD) which showed large ulcerations in the mid-esophagus. The rest of the esophageal mucosa and gastric mucosa was normal. Several biopsies of the esophagus and gastric mucosa were negative for malignancy and *Helicobacter pylori*.

Upon the recommendation of the Gastroenterologist, his dabigatran was discontinued. The patient was subsequently started on enoxaparin and transitioned to warfarin. His initial presenting symptoms of chest pain, dysphagia and odynophagia completely resolved after 1 week.

## Discussion

Dabigatran etexilate (Pradaxa) is an oral anticoagulant increasingly used for non-valvular atrial fibrillation, pulmonary embolus and extremity deep vein thrombosis. Dabigatran is a direct thrombin inhibitor which unlike warfarin does not require any lab monitoring.<sup>1</sup> Drug-induced esophagitis (“pill esophagitis”) is suspected to occur when drugs are retained within the esophagus and contact the esophageal mucosa.<sup>2</sup> Definitive pathogenesis for dabigatran-induced esophagitis is unknown but suspected to be due to local damage from direct contact of the esophageal mucosa with the released tartaric acid contained in the capsules.<sup>3</sup> In one study, the most common symptoms of dabigatran esophagitis were odynophagia, dysphagia, chest pain, heartburn, nausea, and epigastric pain in nearly 70% of patients.<sup>4</sup> These are consistent with the symptoms experienced in the patient described in the case report. Using the Naranjo Probability scale for adverse drug reactions,<sup>5</sup> a score of 8 was obtained which indicates that dabigatran was the likely cause of the patient’s symptoms.

Because local damage from direct contact with esophageal mucosa is the suspected cause, it is prudent that dabigatran be swallowed with a full glass of water and that the patient remain in an upright position for a fair amount of time prior to lying down. Patients with definitive evidence of esophageal injury from the medication should permanently discontinue this medication.

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*Submitted August 7, 2017*