

Complete Esophageal Obstruction Following Ingestion Of Nelfinavir

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Citation

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Abstract

We report a case of acute esophageal obstruction from nelfinavir ingestion. A 43-year old man presented with odynophagia and inability to swallow following ingestion of 3 nelfinavir pills. Upper gastrointestinal endoscopy revealed complete obstruction by pill fragments. Repeat endoscopy a few days later revealed a stricture at the site of obstruction. Pill-induced dysphagia is a rare but potentially serious complication of medication use.

CASE REPORT

A 43-year old man presented to the emergency room with a one-day history of odynophagia and dysphagia. He had taken 3 tablets of nelfinavir obtained from his partner's medication cabinet in a suicidal attempt. Following ingestion of nelfinavir pills he developed chest pain and was unable to swallow liquids including saliva.

He has history of depression but was not on any other medications.

On physical examination, he was unable to complete sentences because of frequent spitting of saliva. Oropharyngeal exam was normal. Multiple attempts to pass a nasogastric tube beyond the nasopharynx were unsuccessful.

Laboratory studies were notable for an increased leukocyte count of 22,000 cells per microliter. A CT scan of the chest and an esophagram showed complete obstruction of esophagus with contrast staying in the upper third of the esophagus (Fig 1).

Figure 1

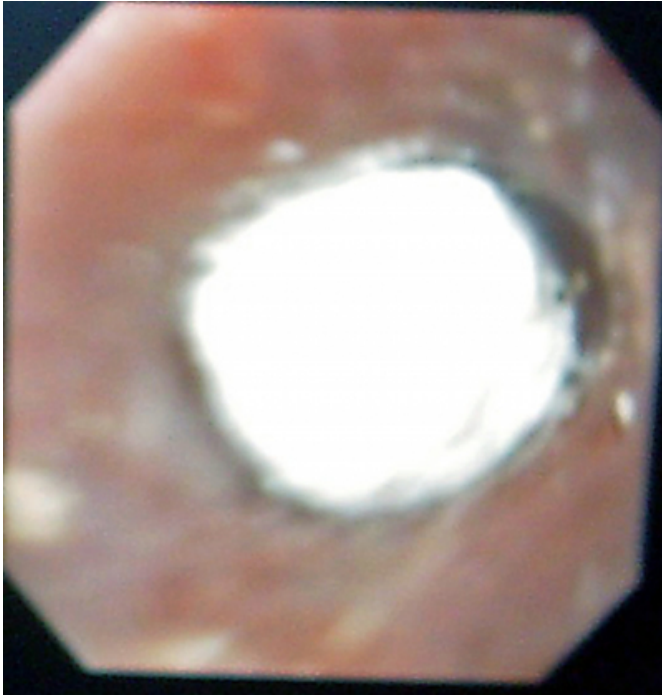
Figure 1: Barium swallow showing complete obstruction



Upper gastrointestinal endoscopy showed white pills obstructing the entire lumen of the esophagus at 20cm from the incisors (Fig 2).

Figure 2

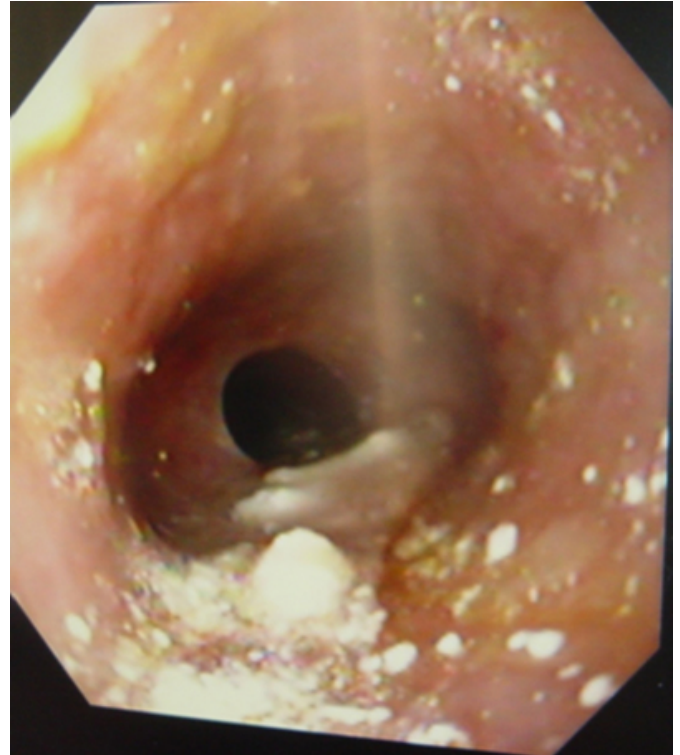
Figure 2: Medication bezoar on endoscopy



The pill was fractured using biopsy forceps. The fragments were pushed into the stomach. Mild esophagitis was noted at the level of the obstruction. A Schatzki ring was found in the lower third of the esophagus 38cm from the incisors (Fig 3).

Figure 3

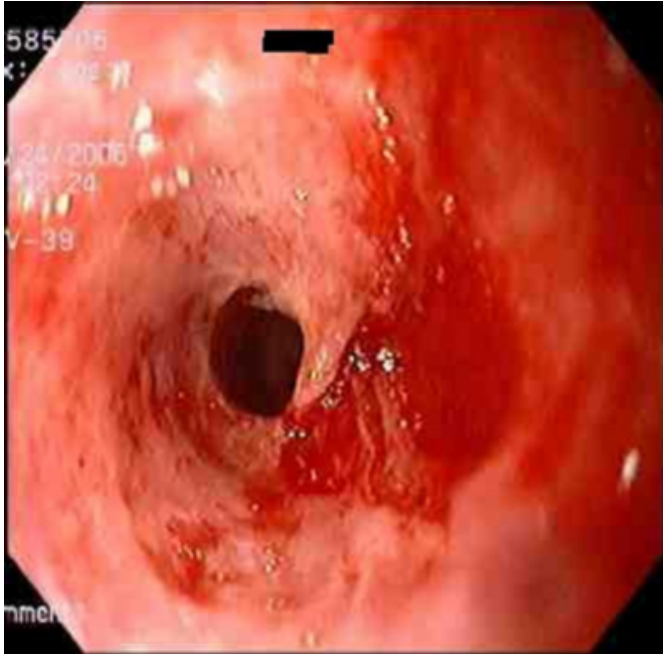
Figure 3: Fragmentation of the pills



There was striped erythematous mucosa noted in the gastric body. After the procedure the dysphagia was immediately relieved and he was able to tolerate liquids followed by full diet. A few days later dysphagia recurred. Repeat endoscopy 5 days later showed a stricture at the site where the nelfinavir had been obstructing the esophagus (Fig 4).

Figure 4

Figure 4: Stricture at level of obstruction 5 days later



This stricture only could be traversed after dilation of the stricture with a pediatric scope. Another endoscopy 1 month later revealed no stricture (Fig 5).

Figure 5

Figure 5: Repeat endoscopy one month later showed no stricture



DISCUSSION

Pill-induced injuries occur when caustic medicinal pills dissolve in the esophagus rather than passing rapidly into the stomach as intended. Most patients suffer only self-limited pain, but esophageal hemorrhage, stricture, and perforation may occur, and fatal injuries have been reported. Medication bezoars are a rare but potentially serious complication of medication use in patients [1]. It is even rarer for pills to lodge in the esophagus. There have been case reports of cellulose fiber, bulk laxatives and guar gum pills that may swell and lodge in the esophagus, causing complete obstruction [2, 3, 4]. In addition, there have been case reports of patients on mechanical ventilation that have developed esophageal bezoar while on sucralfate and protein-rich tube feedings [5].

Nelfinavir is formulated as a large tablet that is often difficult to swallow. Gastrointestinal side effects of nelfinavir include anorexia, dyspepsia, epigastric pain, gastrointestinal bleeding, hepatitis, mouth ulceration, pancreatitis and vomiting. Nelfinavir is available in two strengths: a 625 mg white tablet or a 250 mg blue tablet. The white color of the pills on our endoscopy is consistent with

the 625 mg tablet [6].

Esophageal obstruction in a patient on long-term combination antiretroviral therapy with a high pill burden has been associated with nelfinavir [7]. To our knowledge this is the first case report of acute esophageal obstruction from nelfinavir ingestion in a non-HIV patient. The stricture following the chemical esophagitis secondary to chronic use of medications is a well-known entity, but again, acute stricture with single use of nelfinavir has not been reported previously.

The mechanism of esophagitis with nelfinavir is not clear, but possibly the large size and the tablet form instead of the capsule form may be playing role in lodging this pill in the esophagus, when not taken with ample of fluid or taken few tablets at a time, causing a large bulk.

This case further highlights important facts about the use of nelfinavir in patients with HIV infection who use this medication regularly. Healthcare providers should be aware of these potential side effects of this medication. Patients

using this medication should be educated about importance of drinking ample fluids with nelfinavir. Dipping the tablet in olive oil or using the coated tablet may prevent this risk.

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