

Is That a Fish Bone?

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Abstract

Background: Impacted foreign bodies in the esophagus can easily cause mucosal ulceration, inflammation and infections which may result in various fatal complications. Computed tomography was determined to be very useful in the diagnosis of impacted fish bones in the esophagus.

Aim: Demonstrate incorrect imaging interpretation as result of enteric opacification following oral administration of medications.

Case presentation: A seventy-seven year old woman was referred regarding odynophagia after eating fish. A computed tomography scan of the neck and chest showed a 5 cm long bone in the upper esophagus. However, rigid esophagoscopy failed to identify a bone. Amiodarone is fat-soluble iodine rich antiarrhythmic agent. In our case the high iodine content of amiodarone caused the deceptive computed tomography scan.

Conclusion: Medications' radio-opacification may confuse the physician while searching for foreign bodies.

Keywords: Computed tomography; Foreign body; Amiodarone; Radio-opacification; Fish bone

Introduction

Material retained in the esophagus generally falls into two categories: foreign body and food bolus. Adults commonly tend to have problems with meat and bones. Impacted foreign bodies in the esophagus can easily cause mucosal ulceration, inflammation or even infections and can also result in various fatal complications. CT was determined to be very useful in the diagnosis of impacted fish bones in the esophagus [1,2].

Case Presentation

A seventy seven year old woman was referred regarding odynophagia after eating fish. Medications included amiodarone. A through physical examination did not reveal the source of the pain. A Computed Tomography (CT) scan of the neck and chest showed a 5 cm long bone in the upper esophagus. However, rigid esophagoscopy failed to identify a bone. The patient had been fasting except for her cardiac medication (a crushed amiodarone tablet). A post-op CT was ordered (Figures 1a and 1b) because the suggestion of extraluminal displacement and the absence of a foreign body on direct examination. There appeared to be contrast material throughout the esophagus without a foreign body (or a long bone). The symptoms resolved the next day.

Discussion

Amiodarone is an antiarrhythmic agent used for various types of tachyarrhythmias, both ventricular and atrial arrhythmias. Amiodarone is fat-soluble iodine rich agent, tends to concentrate in tissues including fat, muscle, liver, lungs and skin.

In our case, the high iodine content of amiodarone [3] caused the deceptive CT scan (Figure 2). There appeared to be contrast material throughout the esophagus without a foreign body. The patient had been NPO except for her cardiac medication. Enteric opacification following oral administration of various medications has been recently reported [4]. Familiarity with this phenomenon is important in order to prevent erroneous or misdiagnoses.

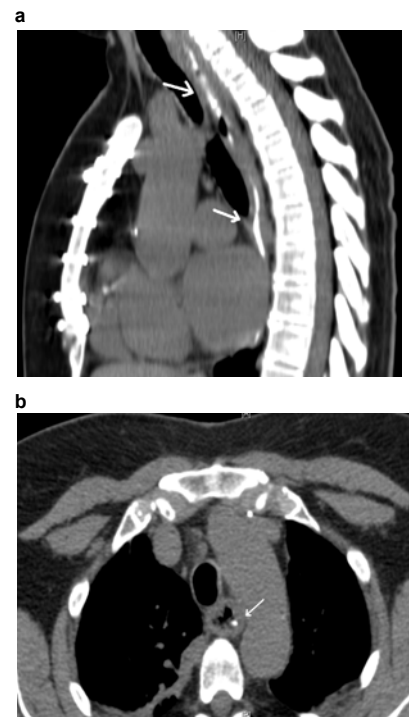


Figure 1: A sagittal (1a) and axial (1b) CT scan reconstructions demonstrating a radio-opacification inside the esophagus (white arrows).

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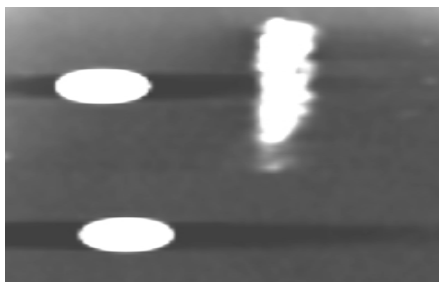


Figure 2: Experimental CT scan demonstrating three amiodarone tablets. The right tablet is crushed.

Conclusion

Medications' radio-opacification may confuse the physician while searching for foreign bodies.

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