TO EAT OR NOT TO EAT: A CASE OF SWALLOW SYNCOPE CAUSED BY COMPLETE HEART BLOCK

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Literature Review

- Swallow syncope is defined as a transient loss of consciousness associated with swallowing.
- Less than 150 cases described in the literature worldwide.
- This is a type of neurally-mediated syncope stemming from the common innervation of the esophagus and the heart via the vagus nerve. Swallowing initiates peristalsis and dilation of the esophagus which triggers mechanoreceptors in the LES resulting in an exaggerated vagal response. This inhibits the cardiac conduction system leading to various paroxysmal arrhythmias, manifesting as syncope.

Case Synopsis

A 51-year-old female with no significant medical history presents with chronic dysphagia. She underwent an extensive gastrointestinal workup with unremarkable EGDs, decreased lower esophageal sphincter (LES) pressure on manometry, and moderate reflux disease on barium swallow. She endorsed feelings of lightheadedness associated with periods of dysphagia and developed multiple syncopal events requiring hospitalization. Syncopal workup included EKGs showing sinus bradycardia and a normal transthoracic echocardiogram (Fig.1). A 14-day Holter monitor demonstrated intermittent complete heart block with significant symptomatic sinus pauses up to 7.4 seconds (Fig.2) during periods of eating, ultimately leading to a diagnosis of swallow syncope and requiring permanent pacemaker implantation.

Fig 1a, b. TTE parasternal long axis and apical 4 chamber views showing normal heart function with aortic valve sclerosis but no stenosis.

Fig 2. 14-day cardiac monitor revealing complete heart block with symptomatic pauses up to 7.4s with eating.

Recommendations

Once patients are diagnosed with swallow syncope, treatment options are limited. The primary focus is to avoid triggers that are identified to precipitate syncopal events. Those who develop arrhythmic complications require evaluation for a definitive treatment with consideration for permanent pacemaker implantation. This case highlights the importance of recognizing this rare association between dysphagia and syncope in order to prevent life-threatening arrhythmias such as symptomatic intermittent complete heart block.

References


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