TEMPERATURE VARIATION OF STIMULI PROVOKING DEGLUTITION SYNCOPE

Poster Contributions
Hall C
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Authors: Arvind K. Pandey, Arvindh Kanagasundram, Satish Raj, Vanderbilt University Medical Center, Nashville, TN, USA

Background: Deglutition syncope is a poorly understood condition associated with lightheadedness, dizziness, or syncope immediately after swallowing. This can often lead to asystole and permanent pacemaker (PPM) placement. Prior descriptions of this phenomenon commonly report cold or carbonated liquids as the inciting stimulus. However, studies assessing varied triggers for this provoked response are lacking.

Clinical Case: A 25 year old male with a 10 year history of intravenous drug use presented with septic shock and gram-negative bacteremia. After volume resuscitation, he was weaned off vasopressor support. TEE was negative for intra-cardiac abscess or vegetation. Four days after admission, he experienced presyncope without loss of consciousness while taking oral medications. This correlated with 6 sec asystole on telemetry monitoring. Baseline ECG showed normal sinus rhythm. The patient reported a past history of similar symptoms while drinking beverages, particularly cold sodas, since the age of 10. He denied associated syncope, palpitations, chest pain, dyspnea, dysphagia, regurgitation, or reflux.

Decision-making: Under continuous non-invasive blood pressure (BP) and cardiac monitoring, the patient was given beverages at varying temperatures. Ice water induced a 1.74 sec pause and decreased BP from 120/70 mmHg to 108/44 mmHg on the first post-pause beat. Refrigerated soft drink produced a 5.96 sec pause with a fall in BP to 84/21 mmHg. Warm coffee similarly produced a 4.9 sec pause with a decreased BP to 89/28 mmHg. There were no ventricular or atrial arrhythmias preceding asystole. These data suggest fluid temperature may not be the sole driver of asystole; other stimuli such as bolus size and mechanical stretch may be triggers. Given the presumed vagally-mediated asystole, he was started on scopolamine for symptom control, with close follow-up to determine need for permanent pacemaker after finishing antibiotic therapy.

Conclusions: Deglutition syncope can produce profound rhythm and blood pressure disturbances. The triggers may not be temperature dependent. Since these spells are largely vagally mediated, anticholinergic medications may be tried before considering PPM.