Teaching NeuroImages:

Glossopharyngeal neuralgia with syncope

Heart rate and blood pressure change

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Figure Heart rate (HR) and blood pressure changes associated with glossopharyngeal neuralgia

Noninvasive beat-to-beat blood pressure (systolic [SBP] and diastolic [DBP]; red thick lines) and HR (blue dot) monitoring showed that the HR and blood pressure simultaneously decreased with the onset of the pain ($\blacktriangleleft$). Both of these conditions returned once the pain subsided ($\blacktriangleright$).

A 53-year-old man was admitted for recurrent syncope. For 2 years he had experienced a severe paroxysmal stabbing pain in the left oropharynx, starting at the submandibular area and then radiating to the posterior periauricular area. In the 2 weeks before admission, he developed syncope with dizziness, cold sweats, and paroxysmal pain. Noninvasive monitoring (Finometer; Finapres Medical Systems BV, Amsterdam, the Netherlands) showed a simultaneous decrement of the heart rate and blood pressure with the onset of the pain (figure). Syncope in glossopharyngeal

neuralgia is proposed to be mediated by the glossopharyngeal-vagal reflex arc, which is activated by the irritative afferent impulses of the glossopharyngeal nerve.^{1,2}

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