
Speech-triggered atrial tachycardia originating from the superior vena cava

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A 63-year-old male was referred due to frequent episodes of palpitations during conversation. An incessant form of atrial tachycardia (AT) triggered by premature atrial complexes could be reproducibly induced by starting to speak, and terminated over time after cessation of the conversation. In an electrophysiological study, a short duration AT was reproducibly induced by a single word verbal reply and three-dimensional electroanatomical mapping (Biosense Webster) revealed that the earliest focal activation site of the AT was on the septal side of the superior vena cava (SVC) (Figure). When the ablation catheter was placed at that site, the AT became no longer inducible even by speech manoeuvres, and then radiofrequency energy was applied. After 1 year of follow-up, he has been free of any palpitations during conversations.

It may be inferred that central modulation acting on the pharyngeal muscles via the vagus nerve for a voice production also stimulates the cardiac vagus nerve elements, and the discharges of the sympathetic nervous system simultaneously occur by the initiation of speech. Both autonomic nerve elements collaboratively promote the formation of abnormal triggered activity, and subsequently lead to an occurrence of speech-triggered AT.

The full-length version of this report can be viewed at: http://www.escardio.org/communities/EHRA/publications/ep-case-reports/Documents/Speech-triggered-atrial-tachycardia.pdf.