

Coronary artery spasm

Coronary artery spasm (CAS) is a rarely reported complication in neurosurgical patients and its main causative mechanism was attributed to vagal mediated responses. However, these may be the unusual manifestations of [trigeminal cardiac reflex](#) (TCR) which is a well established brain stem reflex observed in various neurosurgical patients.

TCR is a possible mechanism in producing CAS in most of the cases in which stimulation occurred at or near the vicinity of trigeminal nerve. It is likely that TCR mediated coronary spasm may be a physiological mechanism and not related to actual myocardial insult apparent by cardiac enzymes or echocardiography studies in most of the cases. Some common risk factors may also exist related to occurrence of CAS as well as TCR. Conclusions. In conclusion, neurosurgical procedures occurring at the vicinity of trigeminal nerve may produce CAS even in previously healthy patients and may produce catastrophic consequences. There is a need for future reports and experimental studies on the interaction of TCR and pathophysiological mechanisms related to CAS ¹⁾.

¹⁾

Chowdhury T, Meuwly C, Sandu N, Cappellani RB, Schaller B. Coronary Spasm in Neurosurgical Patients and Role of Trigemino-cardiac Reflex. *Neurol Res Int.* 2014;2014:974930. Epub 2014 Jan 27. Review. PubMed PMID: 24587903.

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