

# Trigemino-cardiac reflexes: maxillary and mandibular variants of the oculocardiac reflex.

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### Abstract

Three case reports are presented to illustrate the existence and importance of reflex bradycardic responses that can occur during maxillofacial surgical procedures. All three patients were healthy young adults undergoing operations which did not include any manipulation of orbital structures. After the patients had been anaesthetized for some time and were haemodynamically stable, profound bradycardia or ventricular asystole occurred suddenly in response to manipulations of the bony structures of the maxilla or mandible, or dissection of, or traction on, the attached soft tissue structures. The parasympathetic supply to the face is carried in the trigeminal nerve. Alternative afferent pathways must exist via the maxillary and/or mandibular divisions, in addition to the commonly reported pathway via the ophthalmic division of the trigeminal nerve in the classic oculocardiac reflex. The efferent arc involves the vagus, regardless of which branch of the trigeminal nerve transmits the afferent impulses. All patients undergoing maxillofacial procedures should be monitored carefully for reflex bradycardia and ventricular asystole.

### Comment in

- [Trigemino-cardiac reflexes.](#) [Can J Anaesth. 1991]
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