

CORRESPONDENCE

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Hypoglossal Nerve Palsy as a Complication of Transoral Intubation for General Anesthesia

To the Editor:—There have been isolated cases of hypoglossal nerve palsies after otolaryngologic procedures, such as prolonged direct laryngoscopy^{1,2} or after aortic arch surgery³ after use of a laryngeal mask airway.⁴ We present a patient with a postoperative hypoglossal nerve palsy after uncomplicated intubation.

A healthy 35-year-old man was admitted for paranasal sinus surgery with nitrous oxide anesthesia induced by intravenous thiopental. The transoral intubation was performed with a McIntosh blade (No. 4, Heine, Germany) and an amoured tracheal tube (Silcolatex®, Rüschi, Germany) with an OD of 9.33 mm. The tube was inserted once atraumatically at the right oropharyngeal side and fixed to the right angle of the mouth. No laryngeal mask airway or throat packs were used. The head was dorsiflexed shortly for direct laryngoscopy. The whole operation (85') was performed in dorsal position, and the head was not extended. The next day, clinical examination revealed a hypoglossal nerve palsy on the left. The electromyographic (EMG) examination showed a clear decrease of the amplitude and a single nerve fiber activity without any degenerative potentials, indicating a transient nerve lesion. An oblique radiograph of the neck detected a calcified left ligamentum stylohyoideum. Serologic tests excluded infections, such as herpes viruses or borreliae, as possible causes of hypoglossal palsy. A neurologic examination and a computed tomography scan of the head revealed no abnormal findings. Four weeks later, the mobility of the tongue was back to normal.

All published cases have one of the following mechanisms in common: the nerve is exposed either to pressure or to stretching for a long interval. This case does not follow this pattern. Pressure to the left lateral root of the tongue occurred only for a short time during routine intubation using the McIntosh blade. A surgical injury is unlikely because the procedure was confined to the nose. We only detected the calcified ligamentum styloideum as pathologic findings. Thus, we conclude that the short compression of the nerve between

the blade and the calcified ligamentum was the event that caused the hypoglossal palsy. In addition, the nerve may have been stretched by the dorsiflexion of the head. If a hypoglossal palsy is noted postoperatively, we recommend radiography of the neck and an EMG investigation. If a calcified ligamentum is known preoperatively, ipsilateral pressure on the root of tongue should be avoided.

Michael Streppel, M.D.
Gregor Bachmann, M.D.
Eberhard Stennert, M.D.
Klinik und Poliklinik für
Hals-, Nasen-, Ohrenheilkunde,
Kopf und Halschirurgie der
Universität zu Köln
Joseph-Stelzmann Strasse 9
D-50924 Köln
Germany

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