



Pathology & Biology Section – 2008

G27 Progressive Isolated Hypoglossal Nerve Palsy and Sudden Asphyxial Death

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The goal of this presentation is to illustrate the direct connection between sudden asphyxial death and isolated hypoglossal nerve palsy secondary of his dissection resulting from cranial trauma.

This presentation will impact the forensic community by illustrating sudden death due to cranial nerve damage.

Unilateral hypoglossal nerve palsy is a rare clinical entity due to the lesions of the nerve in one of its segments (medullar, cisternal, of the base of the skull, carotid, sublingual). A Caucasian male who, during a struggle, received severe stab wounds to his head from a screwdriver resulting in hemorrhage of the perimesencephalic cistern and the frontal portion of the left cerebral ventricle. He was operated on to empty the cisternal hemorrhage. He had a normal postoperative course but showed considerable deglutition's incapacity and dysarthria. A few months after surgery, the man died while eating secondary to asphyxia due to sudden obstructive lingual palsy; authopsy showed a hemorrhagic dissection of the hypoglossal nerve on his bulbar brainstem. This case report appears to be unique because the unilateral hypoglossal nerve palsy is not resulting from postoperative pneumocephalus (most frequently reported in literature), but rather from progressive axonal dissection just distal to its bulbar origin, caused by a cisternal hematoma resulting from cranial trauma. The resulting ipsilateral tongue palsy caused dysarthria and deglutition incapacity and occlusion of the proximal third of larynx by alimentary bolus. Incoordination of the muscles innervated by the hypoglossal nerve resulted in fatal acute asphyxia.

Stab Wound, Isolated Hypoglossal Nerve Palsy, Sudden Death