

# Macroglossia

## Etiology

Has been reported in patients undergoing posterior fossa neurosurgical procedures and is thought to be as a result of venous engorgement from intubation or mechanical positioning during these prolonged procedures.

Very rarely it is reported in supine position. Most importantly it is reported at the end of the surgical procedures. Throat pack used along with tracheal intubation for protection of lower respiratory tract from soiling can lead to tongue enlargement due to obstruction of venous drainage.

A case of acute tongue enlargement in a patient scheduled for excision of brain tumor in supine position which occurred even before commencement of surgery due to excessive throat pack inserted for some nonessential indication. We thus recommend that throat pack should be used cautiously only when absolutely indicated. Otherwise it can lead to life threatening macroglossia <sup>1)</sup>.

Its etiology remains speculative, but a neurogenic explanation seems most plausible <sup>2)</sup>.

## Case series

Three patients developed macroglossia and dysautonomia with wide hemodynamic fluctuations in the setting of posterior fossa injury of the lower brainstem structures, necessitating tracheostomy placement. Macroglossia was managed with dexamethasone and there was complete resolution of dysautonomia while treated with beta-blockers and gabapentin.

Neurointensivists should be aware of macroglossia with dysautonomia complicating brainstem injury, which may have perilous consequences in the setting of cerebral edema or intracranial hypertension

<sup>3)</sup>

<sup>1)</sup>

Sharma PK, Bhakta P, Srinivasan S, Khan RM, Kaul N. Acute tongue enlargement secondary to pharyngeal packing after tracheal intubation—a case report. *Middle East J Anaesthesiol*. 2012 Jun;21(5):761-4. PubMed PMID: 23265046.

<sup>2)</sup>

El Hassani Y, Narata AP, Pereira VM, Schaller C. A reminder for a very rare entity: massive tongue swelling after posterior fossa surgery. *J Neurol Surg A Cent Eur Neurosurg*. 2012 May;73(3):171-4. doi: 10.1055/s-0032-1304220. Epub 2012 May 9. PubMed PMID: 22628082.

<sup>3)</sup>

Iwuchukwu I, Ardelt A, Cueva W, Reshi R, Goldenberg F, Frank J. Macroglossia associated with brainstem injury. *Neurocrit Care*. 2014 Feb;20(1):106-10. doi: 10.1007/s12028-013-9901-7. PubMed PMID: 24002892.

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