

Use of an Ultrasonic Surgical Aspirator for Endoscopic Management of Type IV Posterior Glottic Stenosis

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Objectives:

Posterior glottic stenosis is most frequently caused by prolonged intubation and can be a very difficult condition to manage given to the high risk of re-stenosis and potential morbidity with regards to voice and swallowing. In this case report, we present a case of posterior glottic stenosis with extensive ossified fibrosis that was managed endoscopically with the use of an ultrasonic surgical aspirator (Sonopet).

Materials and Methods:

We report the case of a 51-year-old female with iatrogenic type IV posterior glottic stenosis with resultant tracheostomy dependence due to minimal glottic patency. In order to work towards decannulation, recommendation was for SML with coblator ablation of PGS and possible cordotomy.

Results:

Intraoperatively, the bilateral cricoarytenoid joints were fixed and there was a very dense and heterotopically ossified interarytenoid scar band. The ossified component of the stenosis was unable to be ablated using the Coblator due to its density, therefore the ultrasonic surgical aspirator was employed for this purpose. A right posterior cordectomy and medial arytenoidectomy were performed to improve airway patency, requiring a combination of the ultrasonic surgical aspirator for the ossified component and Coblator for soft tissue. Postoperatively, airway patency was significantly improved, and final pathology showed fibrosis with fragments of bone.

Conclusions:

This case report describes a novel technique for management of heavily ossified laryngotracheal stenosis with the use of an ultrasonic surgical aspirator.