



THE AGA KHAN UNIVERSITY

eCommons@AKU

---

Department of Surgery

Department of Surgery

---

November 2008

# Vocal fold granuloma after prolonged neurosurgical procedure with wire reinforced endotracheal tube

Rashid Jooma

Aga Khan University, rashid.jooma@aku.edu

Follow this and additional works at: [http://ecommons.aku.edu/pakistan\\_fhs\\_mc\\_surg\\_surg](http://ecommons.aku.edu/pakistan_fhs_mc_surg_surg)



Part of the [Neurology Commons](#)

---

## Recommended Citation

Jooma, R. (2008). Vocal fold granuloma after prolonged neurosurgical procedure with wire reinforced endotracheal tube. *JPMA: Journal of the Pakistan Medical Association*, 58(11), 1.

**Available at:** [http://ecommons.aku.edu/pakistan\\_fhs\\_mc\\_surg\\_surg/299](http://ecommons.aku.edu/pakistan_fhs_mc_surg_surg/299)

## Letter to the Editor

### **Vocal Fold Granuloma after Prolonged Neurosurgical procedure with Wire Reinforced Endotracheal Tube**

Madam, Wire-reinforced endotracheal tubes are preferred over the standard and much cheaper PVC endotracheal tubes in situations where there is a potential risk of intra-operative kinking of tube or when the anaesthetist has limited intra-operative access to the tube.<sup>1</sup> This would include majority of head and neck; and neurosurgical procedures. Hazards associated with the use of such reinforced tubes have been reported previously and are mainly related to occlusion.<sup>2,3</sup> We report an unusual complication which led to significant morbidity in our case.

A 32 year old lady presented to us with a left sided petrous meningioma and underwent elective left sub occipital craniotomy. Patient was intubated with a size 7.5 wire-reinforced endotracheal tube which went uneventfully and no vocal fold pathology was identified while pre-intubation laryngoscopy. She was then placed in park bench position with left side up and via a retrosigmoid craniectomy the entire tumour was excised. The duration of anaesthesia was eight hours and at the end of surgery, the endotracheal tube was replaced by a plain PVC tube of same size for elective overnight ventilation. She was extubated twelve hours later and over the next two hours although she remained alert and cooperative, continued to complain of difficulty in breathing, exhibiting biphasic stridor along with hoarseness of voice. Her arterial blood gases were suggestive of type II respiratory failure having a PCO<sub>2</sub> of 58 and she was thus re-intubated for elective ventilation. Her arterial blood gases improved over the next six

hours and she was again extubated. She continued to have stridor and hoarseness and a fiberoptic laryngeal examination was carried out which showed a large vocal cord granuloma at the junction of anterior one third and posterior two thirds of her left vocal fold. Foreseeing prolonged requirements for airway control, patient underwent a tracheostomy, following which her airway problems resolved. Her hospital course was uneventful then onwards and she was discharged after repeat fiberoptic laryngeal examination and removal of tracheostomy on the 26th postoperative day. Follow up till six months have been unremarkable. A thorough search of literature revealed only a single previously reported case of vocal cord granuloma after short term intubation, reported by Naoko et al<sup>4</sup> in which the patient was operated for a renal tumour. The granuloma was detected four months after the surgery by an otorhinologist.

Muhammad Zubair Tahir,  
Muhammad Shahzad Shamim, Rashid Jooma

Aga Khan University Hospital, Karachi, Pakistan.

### **References**

1. Bousfield JD. Armored tracheal tubes for neuroanesthesia. *Anesthesia* 1986; 41:776.
2. Peck MJ, Needleman SM. Reinforced endotracheal tube obstruction. *Anesth Analg.* 1994; 79:193.
3. Ismail S, Khan SA. Hazards associated with the use of a disposable reinforced tracheal tube. *J Coll Physicians Surg Pak* 2005; 15:189-90.
4. Kaneda N, Goto R, Ishijima S, Kawakami S, Park K, Shima Y. Laryngeal granuloma caused by short term endotracheal intubation. *Anesthesiology.* 1999; 90: 1482-83.