Tetraplegia following thyroidectomy in a patient with spinal meningioma

Editor—A 42-yr-old, 80 kg male was undergoing elective total thyroidectomy. The patient had a history of arterial hypertension and Wolf–Parkinson–White syndrome, but had no neurological symptoms. Neck and neurological evaluations were normal. Anaesthesia was induced with propofol 2.5 mg kg$^{-1}$ and fentanyl 1 $\mu$g kg$^{-1}$. After administration of rocuronium 0.6 mg kg$^{-1}$, tracheal intubation was technically easy and did not require neck extension. Ventilation was set to a 30/70 oxygen/air mixture, volume control ventilation with inspiratory tidal volume of 10 ml kg$^{-1}$, respiratory rate of 10 bpm, and inspiratory:expiratory ratio of 1:2. Anaesthesia was maintained with fentanyl 3 $\mu$g kg$^{-1}$ and desflurane at about 0.7 MAC as required to keep the arterial pressure and heart rate within 20% of baseline values. The patient was positioned supine with a pillow under his shoulders to facilitate neck extension. The uneventful surgical procedure lasted 90 min. Before wound closure, positive end-expiratory pressure 10 cm H$_2$O for 20 s was applied to assess haemostasis. On awakening, the patient was able to obey commands by moving his eyes, but not to squeeze with his hand or move his limbs. Neurological assessment revealed flaccid areflexic tetraplegia and anaesthesia below C4 level, with intact cranial nerve function. The patient was assessed as Grade A Frankel classification. A magnetic resonance (MR) scan was performed urgently. Sagittal views of the cervicothoracic spine revealed spinal cord compression at C2–C5 level due to a ventrally located spinal meningioma and oedema of spinal cord (Fig. 1). The patient underwent immediate C2–C5 decompressive laminectomy. He was transferred to the intensive care unit. Tetraplegia remained unchanged throughout the postoperative course. Tracheostomy was performed on the fifth postoperative day. He was able to breathe spontaneously from the 14th postoperative day. He was transferred to neurological rehabilitation unit on the 18th postoperative day.

Fig 1 MR sagittal images of the cervicothoracic spine. A spinal intradural extramedullary lesion at C2–C5 level was found. The lesion was slightly hypointense before (A) and after gadolinium administration (B) on the T1-weighted image, and hyperintense on the T2-weighted image (C).
There is no definitive evidence confirming the superiority of early surgical decompression, nor a consensus as to what time frame constitutes early, emergency, urgent, or delayed decompression. It is generally agreed that the timing of surgery should be based on the individual patient and the availability of resources and skills, and should be as early as safely possible. Co-existing pathology at the cervical spinal level may result in severe neurological impairment after surgery requiring neck hyperextension.

Conflict of interest
None declared.

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Tracheobronchopathia osteochondroplastica: a rare cause of difficult intubation

Editor—Tracheobronchopathia osteochondroplastica is a rare disorder, where there is benign dysplasia of the trachea and large bronchi, characterized by calcifying cartilaginous outgrowths into the tracheal lumen. A 70-yr-old man developed right upper quadrant pain, a week after inguinal hernia repair. An ultrasound of the abdomen confirmed the diagnosis of cholelithiasis. Owing to multiple cardiac problems, he was initially considered for conservative management. Three days later, due to his deteriorating general health, it was decided to do an urgent laparotomy. Anaesthesia was induced with propofol and remifentanil target controlled infusion. He was easy to ventilate. The laryngoscopic view was Grade I, but it was difficulty to pass the tracheal tube (TT) beyond the vocal cords. Eventually, a 6.0 size TT was introduced over a bougie with a grating sensation, felt during intubation. Since there was no great difficulty with ventilation through this tube, we decided to proceed with surgery. Once the surgery was finished, we performed a fibreoptic bronchoscopy with a paediatric bronchoscope and we observed submucous projections from the wall from the subglottic level down to the bronchi. The patient was then transferred to the intensive care unit and ventilated for 3 days. He was extubated over a tube exchanger uneventfully.

We discovered later from his old medical records that he had a condition called tracheobronchopathia osteochondroplastica (Fig. 1). This condition had presented as chronic dry cough in 1996, which on further investigation by bronchoscopy and computed tomography (CT) had been diagnosed as tracheobronchopathia osteochondroplastica. Tracheal stenting had been suggested, but a thoracic surgeon had advised against it in view of his cardiac problems, anticoagulation, and complication risks. His shortness of breath was considered to be due to his cardiac problems. No further

![CT image demonstrating the irregular, asymmetric stenosis of the trachea indicating tracheobronchopathia osteochondroplastica.](https://academic.oup.com/bja/article-abstract/104/6/786/232968/fig1)