

Paratracheal Abscess: A Near Fatal Complication

What is the possible cause of stridor 1 week after decannulation of the tracheostomy of a diabetic patient?

- a) haematoma
- b) granuloma
- c) paratracheal abscess
- d) cord oedema
- e) arytenoids fractures

Case

We report a case of a 55-year-old male with diabetes and end-stage renal failure presenting to the hospital with community-acquired pneumonia. He developed respiratory failure and required ventilatory support for more than a week. An elective tracheostomy was done and he was weaned off subsequently from ventilatory support. The tracheostomy was decannulated after he recovered from the pneumonia and was sent home after about 2 weeks in the hospital. A week later, he presented with dyspnoea to the hospital and a computed tomography (CT) scan of the thorax showed a lesion in the tracheal lumen at the level of the 6th to the 7th cervical vertebrae. Twenty-four hours later, the patient developed severe stridor requiring emergency intubation in the operating theatre.

The patient was induced sitting upright with a mixture of oxygen and sevoflurane to a deep state of anaesthesia where he could be intubated with a size 4 microlaryngeal tube. The tube was able to negotiate below the lesion and maintained adequate ventilatory support. The patient was placed supine and the lesion was successfully drained and a tracheostomy was inserted. Intravenous antibiotic and augmentin were given and the patient was sent to the intensive care for postoperative care.

Tracheostomy is associated with complications such as cuff leak, bleeding, wound infection, tube obstruction by secretion and blood clot and occasionally by tube dislodgement.^{1,2}

Paratracheal abscess is a rare but deadly complication.^{1,3} It has been known to be associated with other surgical intervention of the trachea, such as transtracheal aspiration and transtracheal injection of local anaesthetics.³

Delayed recognition of paratracheal abscess which is a fatal disease could have killed the patient. Immunocompromised

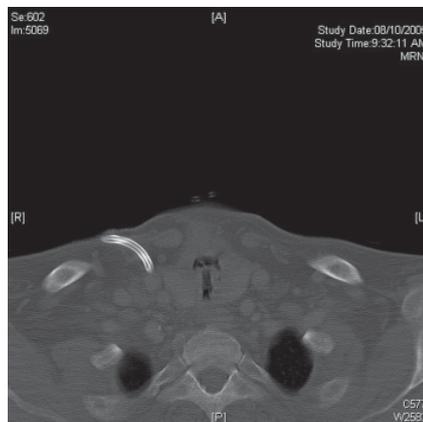


Fig. 1. Computed tomography scan of the thorax showing an intraluminal lesion in the trachea at the level 6th to the 7th cervical vertebrae.

patients are at high risk of developing infection from surgical procedures and one should be aware of the temporal association between paratracheal abscess and tracheostomy.

The other options such as haematoma, cord oedema and arytenoids fracture are causes for acute stridor and unlikely for an event that occurred a week later. Granuloma formation may occur later but is unlikely to present with sudden obstruction.

REFERENCES

1. El Solh AA, Jaafar W. A comparative study of the complications of surgical tracheostomy in morbidly obese critically ill patients. *Crit Care* 2007;11:R3.
2. Durbin CG Jr. Early complications of tracheostomy. *Respir Care* 2005;50:511-3.
3. Cole AG, Kerr JH. Paratracheal abscess after tracheostomy. *Intensive Care Med* 1983;9:345-7.

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