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Case Report

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TRACHEAL LACERATION AFTER OROTRACHEAL INTUBATION: CASE REPORT

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Abstract

Tracheal laceration due to intubation is a rare and potentially fatal complication. Clinical manifestations range from subcutaneous emphysema to respiratory failure. The diagnosis can be suggested by computed tomography and the therapy is individualized (conservative or surgical).

Key Words: laceration, trachea, intubation

INTRODUCTION

Tracheal laceration due to intubation is a rare and potentially fatal complication, occurring more often in emergency intubation1. It is commonly presented as a linear lesion in the membranous wall of the trachea1,2. Diagnosis can be suggested on computed tomography and treatment may be conservative or operative depending on each case2.

Clinical case

Patient, MS, 47 years old, suffered cardiorespiratory arrest and postoperative orotracheal intubation presented cervical edema and stridor. The patient underwent computed tomography of the abdomen, which revealed in the distal third of the trachea the right parietal discontinuity associated with adjacent hypoattenuating images compatible with emphysema. The examination revealed pneumomediastinum. Patient died.

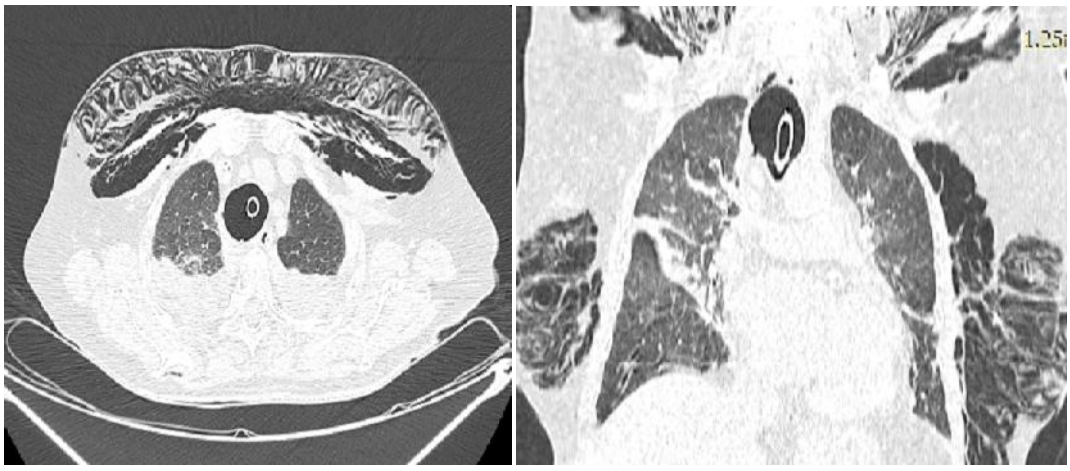

Figure 1 Axial and coronal computed tomography showing tracheal discontinuity associated with adjacent emphysema

DISCUSSION

Iatrogenic tracheal injury by intubation is rare. It occurs in about 0.005% for intubation, orotracheal with single tube and from 0.05% to 0.19% for the one with double lumen tube. It is more common in the distal third of the trachea and in the main bronchi, in the union of the membranous portion with the cartilaginosa1. In case of cuff insufflation, it tends to be located in the proximal trachea2. The lesion may result from the use of a tube of inappropriate size, sudden tube mobilization, hyperinflation of the cuff.

The direct injury caused by the tube occurs after vigorous intubation attempts in emergency situations. The inappropriate use of the guide or repositioning of the tube is also mentioned without emptying the cuff completely3. The various lesions will be related in three categories: injuries during the introduction of the intubation cannula, lesions secondary to the contact of the cannula or its cuff on the structures of the airways and lesions resulting from the damage to the inhaled air conditioning4. The event is more common in women, in patients with tracheal wall weakness due to inflammation or in use of corticosteroid therapy5.

Clinically, subcutaneous emphysema may occur in the chest and neck, pneumomediastinum, pneumothorax, and respiratory failure6. Although there are complementary exams, the diagnosis is made up of fiberoptic bronchoscopy 7.

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Regarding therapeutics there are two options: surgical and conservative treatment. If an injury greater than 4 cm is submitted to surgery (cervicotomy or thoracotomy depending on the affected site); If less than 4 cm and early diagnosis should be initially treated conservatively (positioning of the tracheal tube with the cuff distal to the lesion in those patients on mechanical ventilation).

Final considerations

There are few reports of breast myiasis and the present work, in its limited coverage in the literature, contributes to the knowledge about the subject.

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