PO 23 - IATROGENIC TRACHEOBRONCHIAL RUPTURE IN A FRAGILE PATIENT

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Background: Iatrogenic tracheal rupture after endotracheal intubation is a rare complication. Early diagnosis has a significant prognostic effect.

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Case Report: 85-year-old woman diagnosed with frailty syndrome in the elderly, type 2 diabetes mellitus, hypertension, and heart failure. Admitted to the frail patient unit due to a subacute cerebellar stroke and acute pyelonephritis. During hospitalization, owing to perforated acute cholecystitis and septic shock the patient was proposed for urgent open cholecystectomy. She didn't present any signs of difficult airway and preoperative fasting was assured. Her clinical status was classified as ASA IV. The surgery was performed under general anesthesia with orotracheal intubation with a cuffed endotracheal tube of internal diameter 7.0, through direct laryngoscopy, without the use of a stylet. The cuff was inflated with 3-4 ml of air. On induction, regurgitation of gastric content occured with pulmonary aspiration resulting in global respiratory failure. Besides this, intubation was performed without difficulties. She was transferred to the intensive care unit (ICU), at the end of the procedure under mechanical ventilation. On arrival at the ICU, she presented an extensive bilateral subcutaneous emphysema on the neck. Chest CT scan did not show pneumothorax but described pneumomediastinum and a continuity solution in the right posterolateral wall of the trachea, above the carina, in the distal end of the tracheal tube. It was assumed a probable iatrogenic rupture of the trachea in the context of intubation. Considering the frailty scenario and clinical status, there was no indication for surgical correction of the lesion, maintaining only the conservative approach. The patient survived and was discharged from the ICU.

Discussion: This case highlights the need for awareness of this intraoperative complication, particurlarly in emergent/urgent intubations.

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Risk factors include advanced age, poor medical condition and overinflation of endotracheal tube cuffs.

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Decision between conservative and surgical management depends on clinical presentation, lesion characteristics and time elapsed from injury to diagnosis.

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References: 1.Eur J Cardiothorac Surg. 2009 Jun;35(6):1056-62.; 2. Thorac Cardiovasc Surg. 2006 Feb;54(1):51-6; 3. Acta Clin Croat. 2012 Sep;51(3):467-71.