

SUCCESSFUL MANAGEMENT OF A PATIENT WITH TRACHEOSTOMY-RELATED TRACHEAL PERFORATION.

C-K Tan¹, S-C Ko², K-S Chan¹, K-C Cheng^{1,2}

Department of Intensive Care Medicine¹, Pulmonary Medicine²,

Chi-Mei Medical Center, Tainan, Taiwan.

BACKGROUND/AIMS: Tracheal perforation is a rare but well-known and potentially life-threatening complication of tracheostomy.

METHODS: Subcutaneous emphysema is the first sign of tracheal perforation that could be easily identified from both physical examination and chest radiography, which are routinely performed in post-tracheostomy patients in the ICU of a tertiary hospital.

RESULTS: A 68-year-old woman had AMI and appeared to be dead –on arrival to the emergency department. She was admitted to the ICU after successful cardiopulmonary resuscitation and was transferred to the respiratory care center later for weaning from the mechanical ventilator. Tracheostomy was performed for difficult weaning. A small amount of subcutaneous emphysema was noted at the neck area, which resolved the next day. Septic shock was noted 1 week after tracheostomy and she was readmitted to the ICU. Rapid progression of subcutaneous emphysema was noted, extending to the face, chest wall and extremities. Emergent bronchoscopy revealed a 1x1-cm perforation at the membranous portion of the trachea near the tip of the tracheostomy tube. Surgical repair was not considered by both the surgeon and her family members. Hence, she was treated conservatively with antibiotics. The tracheostomy tube was replaced with an endotracheal tube via the tracheostoma, which was used to bypass the perforation with bronchoscopic guidance. The subcutaneous emphysema resolved. Her condition then improved dramatically, with the patient regaining consciousness and being weaned off the ventilator. Subsequent bronchoscopy showed a healed perforation.

DISCUSSION/CONCLUSIONS: Tracheal perforation can happen late after tracheostomy. Conservative treatment with antibiotics and use of an endotracheal tube to bypass the perforation may sometimes result in a favorable outcome in a patient who is not suitable for surgery.

Keywords: tracheal perforation, tracheostomy, subcutaneous emphysema.