

A Comparison between Surgical Tracheostomy and Two techniques of Percutaneous Tracheostomy in Critically ill Patients

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Background and Objectives: Percutaneous dilatational tracheostomy (PDT) had largely replaced surgical tracheostomy in the intensive care unit setting. Although it seems logical that surgeons continue to do tracheostomies, anesthesiologists and intensive care specialists are familiar with airway control and guide wire techniques and could replace surgeons in the performance of PDT. Percutaneous dilatational tracheostomy might reduce the number of complications in Egyptian patients. Thus, this study aims to compare between ST and the PDT concerning the outcome and the complications (Intra and early post-operative) in critically ill patients.

Study design: this is a randomized single-centre control study was prospectively conducted on 60 critically ill patients who were scheduled to do tracheostomy in the period from January 2010 to January 2011. Patients were divided into two groups: The surgical tracheostomy (ST) group 30 patients and the percutaneous dilatational tracheostomy (PDT) group 30 patients(15 using ciaglia technique and 15 using Criggs technique). All the demographic, intra-operative and postoperative data were prospectively collected and analyzed statistically. The patients were followed for one week post-operative.

Results: there was no significant difference between both groups concerning the baseline demographic data, the ICU admission diagnosis, the co-morbidities and the intra-operative complications but the early post-operative complications were significantly higher in the ST group compared to the PDT group. The duration of ICU stay and mechanical ventilation days were significantly higher in the ST compared to the PDT group **Conclusions:** there was a higher incidence in the early postoperative complications and mortality in the ST group compared to the PDT group in critically ill egyptian patients . Hence, PDT could be the procedure of choice for the management of the airway in critically ill patients provided there is a good experience.

Key word: Surgical tracheostomy, Percutaneous tracheostomy, Critical care

Abbreviations: ST = surgical tracheostomy; PDT = Percutaneous dilatational tracheostomy; ICU = Intensive care unit