A COMPARATIVE STUDY ON PROLONGED ENDOTRACHEAL INTUBATION VERSUS TRACHEOSTOMY IN TOXICOLOGY ICU PATIENTS REQUIRING PROLONGED MECHANICAL VENTILATION

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ABSTRACT

AIM OF THE STUDY

To study the effectiveness of tracheostomy in reducing duration of ventilation and hospital stay and to study the complications associated with tracheostomy and endotracheal intubation. And also to define optimum time to carry out elective tracheostomy

METHODOLOGY

The study design was prospective and retrospective, comparative study, including 100 patients aged between 15-75 years on prolonged mechanical ventilation. These patients were divided into patients on prolonged intubation and patients requiring tracheostomy. Depending on the timing of tracheostomy, if done within one week after intubation they are considered as early tracheostomy group and late tracheostomy group if done after one week after intubation. These patients are assessed on various parameters like total duration of mechanical ventilation, length of ICU stay, complications associated with tracheostomy and prolonged intubation, mortality rate, final outcome, total length of hospital stay and videolaryngoscopy findings by one month and six months after discharge
Results

We observed that early tracheostomy has reduced the duration of mechanical ventilation 10 days vs 20 days in late tracheostomy group (p value 0.001). Inhospital mortality rate is high among patients on prolonged intubation than patients on tracheostomy. Patients on prolonged intubation developed airway complications (p value 0.001). Early tracheostomy patients had decreased length of ICU stay 13 vs 27 days, consequently shortened length of hospital stay 19 vs 32 days when compared to late tracheostomy group (p value 0.000).

CONCLUSION

Early tracheostomy (done within 1 week after intubation) has significantly increased the number of ventilator free days, reduced ICU and overall length of hospital stay.

Keywords: tracheostomy, mechanical ventilation, intubation