Abstract—Voice-Related Quality of Life

Title Page

Title: Mechanically ventilated patients report improvement in voice-related quality of life with a talking tracheostomy tube—A randomized controlled study

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Abstract describes: Completed work

Preferred Presentation Format: Either

Preferred Presentation Category: Adult

Abstract Summary (25-50 word summary):
Verbal communication affects patient autonomy. Communication is limited in intubated patients causing frustration. Our study aimed at evaluating the outcomes of patients using a talking tracheostomy. The goal is to promote communication between patients and healthcare providers in the ICU and evaluate the impact on quality of life.

Content Outline: Will be provided if accepted for Podium presentation

Keywords (3 keywords or phrases that relate to the topic):
Communication, Quality of Life, Tracheostomy
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Abstract Page

The abstract should be limited to 300 words or less.

BACKGROUND:
Communication is limited in intubated patients causing frustration. Tracheostomy can help improve communication using a one-way speaking valve, however, challenges exist when patients are unable to tolerate cuff deflation required for one-way speaking valve. The purpose of this study was to evaluate the effectiveness of a talking tracheostomy tube on voice-related quality of life.

METHODS:
A prospective randomized controlled clinical trial pilot study was conducted (NCT02018562) in the 7 ICUs at an academic teaching hospital. Fifty participants consented for the study who were 18 years old and greater, mechanically ventilated via tracheostomy for more than 48 hours, unable to tolerate a speaking valve, able to understand English, awake, alert, and attempting to communicate. Participants were randomized into intervention (talking tracheostomy tube) and control (no talking tracheostomy) groups. Quality of life was measured using Quality of Life for Mechanically Ventilated Patients (QOL-MV) questionnaire and Voice Related Quality of Life (VR-QOL) instrument.

RESULTS:
Baseline mean QOL-MV score was 43.57± 13.89 and the mean VR-QOL score was 25±17.57. The VR-QOL scores demonstrated a statistically significant improvement from pre-intervention to post-intervention scores (p = 0.05) after patients received a talking tracheostomy tube. When only the speech item was analyzed from the QOL-MV questionnaire, the intervention group had a significant improvement is speech scores after they received a talking tracheostomy tube (1.33-5.75 [p = 0.0000]) compared to the control group (1.20-2.78 [p=0.061]).

CONCLUSION:
Data from this study supports that talking tracheostomy tubes can be used to promote speech in critically ill mechanically ventilated patients who were unable to tolerate cuff deflation or speaking valve. Larger randomized controlled studies are necessary to further confirm these findings and determine if overall quality of life improves with a talking tracheostomy tube.
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