

中文題目：氣切對長期呼吸器依賴患者兩年呼吸器脫離率之影響

英文題目：Neutral impact of tracheostomy on 2-year weaning rate in patients requiring prolonged mechanical ventilation

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**Background:** Tracheostomy is recommended for patients requiring prolonged mechanical ventilation (PMV); however, the impact of tracheostomy on the long-term weaning outcome remains elusive. This study aimed to address the impact of tracheostomy on 2-year weaning rate in patients admitted to a 40-bed respiratory care ward (RCW) in central Taiwan.

**Material and methods:** We retrospectively enrolled consecutive patients admitted to the study hospital between Jan. 1, 2009 and Dec.31, 2013. The main outcome was the successful weaning within 2 years, and the successful weaning was defined as without mechanical ventilation for five days. The covariate included gender, age, Charlson comorbidity index and albumin levels, and logistic regression model was used to identify independent predictors for the successful weaning.

**Results:** A total of 346 patients were enrolled in this study, the mean age was 80.7±10.9 years, and 8.4% (29/346) of them were female. In the present study, 72.5% (251/346) of patients received tracheostomy. We found that patients with a tracheostomy had a longer length of stay at RCW (228.6±328.9 vs 153.4±211.1 days) compared with those without a tracheostomy. Furthermore, female in gender, a high albumin level after admission were associated with the successful weaning within 2 years. The logistic regression showed that tracheostomy was not associated with 2-year weaning outcome, while a high albumin (Odds ratio (OR): 1.794; 95% confidence interval (CI), 1.248–2.578) remained an independent predictor and old age was a negative predictor (OR: 0.982, 95% CI: 0.969–0.996) for 2-year successful weaning in patients with PMV.

**Conclusions:** Tracheostomy appeared to have a neutral impact on the long-term weaning rate in patients with PMV admitted to the RCW in the present study, and more studies are warranted for validation.