

00664 Postoperative pneumonia in surgical patients with epilepsy

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Purpose: People with epilepsy are more likely than healthy people to experience respiratory comorbidities and complications in various medical situations. However, the prevalence of postoperative pneumonia in surgical patients with epilepsy has not been studied. The purpose of this study is to examine whether epilepsy is an independent risk factor for postoperative pneumonia.

Methods: Retrospective cohort study using the National Health Insurance Research Database to identify patients with epilepsy who underwent major surgery in Taiwan between the years 2004 and 2007. For each epilepsy patients, four age and sex-matched participants without epilepsy were selected. Postoperative 30-day pneumonia was considered as major outcome. We used multivariate logistic regression to calculated adjusted odds ratios (ORs) and 95% confidence intervals (CIs) of postoperative pneumonia associated with epilepsy after the adjustment for age, sex, low income, urbanization, operation in teaching hospital, coexisting medical conditions, types of surgery and types of anesthesia.

Results: A total of 13,103 patients with epilepsy and 52,412 non-epilepsy participants were included. Patients with epilepsy have significantly more preoperative coexisting medical conditions and demonstrated more risk of postoperative pneumonia (9.6% vs. 2.8%, $p < 0.0001$). Epilepsy was associated with postoperative pneumonia (adjusted OR=2.54, 95% CI=2.32-2.79). In particular, those with preoperative epilepsy-related hospitalization (adjusted OR=3.54, 95% CI=3.16-3.97) or epilepsy-related emergency care (OR=2.73, 95% CI=2.34-3.18) had significantly risk of postoperative pneumonia.

Conclusion: Epilepsy is a risk factor for postoperative pneumonia. Better management of postoperative pneumonia for people with epilepsy is needed.