

International Conference on

METABOLOMICS AND DIABETOLOGY

May 23-24, 2018 | New York, USA

Diabetes mellitus patients with general anesthesia are associated with an increased risk of surgical site infection after surgery compared to neuraxial anesthesia: A population-based study

Chun-Jen Huang

Taipei Medical University, Taiwan

Diabetes mellitus (DM) is one crucial risk factor of surgical site infection (SSI). Previous data highlighted that anesthetic modes may exert significant impacts on the risk of SSI within 30 days after surgery. However, impacts of different anesthetic modes on SSI within 30 days after surgery in DM patients remain un-studied. To elucidate further, we thus conducted this population-based study using data from LHID2010, a database includes medical claims data and registration files for 1 million enrollees randomly selected from approximate 24 million registry for beneficiaries of Taiwan's National Health Insurance program. DM patients receiving general anesthesia (the GA group) or neuraxial anesthesia (i.e., spinal or epidural anesthesia; the NA group) for surgery between January 2000 and December 2012 were included. Patients with history of DM before anesthesia or age of less than 20 or more than 100 years were excluded. A total of 24829 DM patients (GA: 16889; NA: 7940) were included. Diagnosis of SSI was made based on 5 or 81 International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes. Our data revealed that the GA group had a significantly higher incidence of 30-day SSI than the NA group (5 ICD-9-CM codes: 2.5% vs. 1.8%, $P=0.011$; 81 ICD-9-CM codes: 3.5% vs. 3.0%, $P=0.026$). After controlling for the potential confounders, multivariate logistic regression analyses revealed that the risk of 30-day SSI in the GA group was significantly higher than the NA group (5 ICD-9-CM codes; hazard ratio [HR]=1.70, 95% confidence intervals [CI]=1.38-2.10, $P<0.001$; 81 ICD-9-CM codes: HR=1.21, 95% CI=1.03-1.43, $P=0.020$). The trend remains the same after adjusting for the propensity scores. In conclusion, these data demonstrated that DM patients receiving general anesthesia for surgery are associated with an increased risk of SSI within 30 days after surgery compared to those who receiving neuraxial anesthesia.

huangcj1112@gmail.com