

Oral

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(Conference Room C)

Oral 14

[O-14-03] Development and Validation of a Perioperative Psychiatric Symptom Worsening Risk Score in Patients with Schizophrenia Spectrum Disorders: A retrospective cohort study

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Background

Some patients with schizophrenia spectrum disorders (SSDs) may experience a worsening of psychiatric symptoms during the perioperative period, even if their psychiatric symptoms are stable at the time of admission, requiring intervention by psychiatrists or transfer to a psychiatric ward. In Japan, the number of general hospitals with full-time psychiatrists or psychiatric beds is declining, highlighting the need for assessment tools to select the appropriate medical institution based on the risk of worsening psychiatric symptoms in patients. However, no objective tool currently exists to meet this need.

Objective

To develop and internally validate a simple scoring model to predict the risk of perioperative psychiatric symptom worsening in patients with SSDs.

Methods

We retrospectively analyzed medical records from three Japanese hospitals over five years (2017–2022). Eligible patients had SSDs and were admitted to non-psychiatric wards for surgery. Psychiatric symptom worsening was defined as: (1) changes in psychotropic medications for ≥ 4 consecutive days, (2) use of physical restraints due to psychiatric symptoms, or (3) transfer to a psychiatric ward. Three predictors were selected based on our previous research: (1) surgery duration > 180 minutes, (2) emergency surgery, and (3) admission from a location other than home. Each factor was assigned 1 point. Logistic regression confirmed all predictors as significant.

Results

Among 200 patients, 25 (12.5%) experienced psychiatric deterioration. The model demonstrated good discrimination (AUC = 0.743; bootstrap-adjusted AUC = 0.744, 95% CI: 0.632–0.841). A cutoff of ≥ 1 yielded high sensitivity (88.0%) and low specificity (37.1%); a score of 3 yielded high specificity (98.9%) and low sensitivity (24.0%). Patients were classified into three risk groups: low (0), medium (1–2), and high (3).

Conclusion

This model may support clinicians in assessing perioperative psychiatric risk and selecting appropriate care settings, and requires external validation.