

BP-03

Postoperative Delirium after Cervical Spine Surgery in Elderly Patients

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Purpose: According to aging of society, the number of elderly patients undergoing surgical treatment for cervical myelopathy has increase significantly . If an elderly person with spinal disorder is left untreated, their ADL will decline significantly and they will become more dependent on care. Therefore, there is a trend to actively adopt surgical treatment. However, we should recognize that cervical spine surgery in elderly patients has higher risk of postoperative delirium. We investigated the incidence of this particular complication and analyzed associated factors and their impact.

Objects and methods: The study included 103 patients aged 70 years or older who had undergone cervical spine surgery at our hospital between January 2022 and August 2024. Selected surgical method was anterior decompression and fusion for 43 patients and posterior laminoplasty w/wo fixation for 60 patients.

Postoperative delirium was assessed using the Intensive Care Delirium Screening Checklist (ICDSC), and a score of 4 point or more was considered postoperative delirium. The preoperative JOA score was used as the severity of cervical myelopathy, and as the course of hospitalization, the route of admission (scheduled/urgent), ICU stay, hospital stay, and discharge destination (home/transfer) were investigated.

Results: Postoperative delirium occurred in 21 (20.4%) of the 103 patients . All patients developed delirium during their ICU stay (one or two days after surgery). Gender, admission history or preoperative JOA score did not affect the incidence. However, patients who underwent anterior procedure had a significantly higher incidence compared to posterior surgery (Odds ratio 2.79). There was significant difference ($p<0.05$) in ICDSC score by surgical method (2.4 ± 1.9 in anterior and 1.4 ± 1.6 in posterior). As to impact of developing delirium, the mean length of hospital stay was extended to 31.1 ± 16.9 days which was significantly longer than non delirium group ($p<0.05$).