



INFLUENCE OF TRAUMA TO THE PATIENTS WITH OSSIFICATION OF THE POSTERIOR LONGITUDINAL LIGAMENT OF THE CERVICAL SPINE

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Introduction

The influence of trauma to the neck on the neurological outcome in patients with Ossification of the posterior longitudinal ligament (OPLL) of the cervical spine is not determined whether prophylactic surgery is necessary or not.

Methods

We retrospectively analyzed our own patients experience with cervical OPLL in a single institute for 10 years.

Results

The cervical OPLL was diagnosed in total 387 patients for previous 10 years. The trauma history was detected in 61 patients. Fifty two patients (85.2%) were underwent surgical treatment and other 9 patients treated conservatively. The etiology of trauma was mostly minor event; traffic accident in 20, fall down at the low height in 8, slip down in 26, and body massage or physical fight in 7. The interval between the trauma event and symptom development was 10.5 months. The initial Nurick grade was grade 0 in 30, grade 1 in 13, grade 2 in 8, grade 3 in 2, grade 4 in 0 and grade 5 in 8. The OPLL type was continuous in 16, segmental in 4, mixed in 24 and other in 17. The residual spinal canal diameter of the spinal cord was 6.9mm, while it was 8.6mm in non-surgical group. The mean follow-up period was 53.6 months. At last follow-up, the Nurick grade was grade 0 in 45, grade 1 in 3, grade 2 in 10, grade 3 in 0, grade 4 in 3 and grade 5 in 0. The preoperative JOA score was 13.5, and final score was improved to 15.6.

Learning Objectives

The object of this study is to determine the impact of trauma on the cervical OPLL.

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Conclusions

These results indicate that even minor trauma to the neck can cause irreversible changes in the spinal cord if there is marked stenosis of the cervical canal from OPLL. Therefore, such patients who are at risk, must be educated, and should be told to avoid even minor injuries or recommend prophylactic surgery.