

Abstract #1365.docx

Evaluation of prognostic factors for cervical spondylotic amyotrophy

Aim

The purpose of this study was to clarify the prognostic factors for cervical spondylotic amyotrophy (CSA).

Materials and Methods

We retrospectively reviewed the medical records of 47 consecutive patients with CSA in whom the presence/absence of the pyramidal tract sign was noted. We analyzed whether the age, sex, presence of diabetes mellitus, medication (vitamin B12), type of the most atrophic and impaired muscle, the muscle strength at the presentation, the presence of the pyramidal tract sign, magnetic resonance imaging (MRI) findings, including the presence and number of T2 high signal intensity areas (T2 HIA) in the spinal cord and the conversion to surgery were associated with the recovery of muscle strength in the patients. In addition, we also investigated whether the duration of symptoms before surgery and the type of surgery were associated with the recovery of muscle strength in patients who required conversion to surgical treatment.

Results

The presence of T2 HIA on MRI ($p=0.002$), the number of T2 HIA on MRI ($p=0.002$) and conversion to surgery ($p=0.015$) were found to be significantly associated with a poorer recovery at the observational final follow-up. Further, the presence of the pyramidal tract sign ($p=0.043$) was significantly associated with a poor recovery at the final follow-up after surgery.

Discussion and Conclusion

The presence of a high signal intensity change on T2-weighted MRI and the pyramidal tract sign can be used as prognostic factors for patients with CSA.