

Clinical Outcomes And Prognostic Factors In Patients With Spinal Dural Arteriovenous Fistulas : A Prospective Cohort Study In Two Chinese Centers

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Purpose

To define the short-term clinical outcomes and prognostic factors in patients with SDAVFs.

Materials and Methods

A prospective cohort of 112 patients with SDAVFs were included consecutively in this study. The patients were serially evaluated with the modified Aminoff and Logue's Scale (mALS) on 1 day before operation and at 3 months, 6 months, 12 months after treatment. Univariate and multivariate analyses were performed to identify demographic, clinical, and procedural factors related to favorable outcome.

Results

A total of 94 patients (mean age of 53.5 years, 78 were men) met the criteria and are included in the final analyses. Duration of symptom ranged from 0.5-66 months (average time period of 12.7 months). The location of SDAVFs was as follows: 31.6% above T7 level, 48.4% between T7 to T12 level (including T7 and T12), and 20.0% below T12 level. A total of 81 patients (86.2%) underwent neurosurgical treatment, 10 patients (10.6%) underwent endovascular treatment, and 3 patients (3.2%) underwent neurosurgical treatment after unsuccessful embolization. A total of 78 patients demonstrated an improvement in mALS score of 1 point or greater at 12 months. Pre-operative mALS score was associated with clinical improvement after adjusting for age, gender, duration of symptom, location of fistula and treatment modality used unconditional logistic regression analysis ($P < .05$).

Conclusion

Approximately four fifths of the patients experienced clinical improvement at 12 months and pre-operative mALS was the strongest predictor of clinical improvement in the cohort.