Aminoff and Logue disability scale

A Scale for Spinal Dural Arteriovenous Fistula

Gait
1. Restriction of walking
2. Restricted exercise tolerance
3. Requires on stick or some support for walking
4. Requires crutches or normal leg power, stance and gait
5. Leg weakness with no two sticks for walking
6. Requires a wheelchair

Micturition
1. Urgency, frequency and/or hesitancy
2. Occasional incontinence or retention
3. Persistent incontinence of retention

Bowel
1. Mild constipation, responding well to aperients
2. Occasional incontinence or persistent constipation
3. Persistent incontinence

A retrospective study was performed for all patients diagnosed with spinal dural arteriovenous fistula (SDAVFs) and treated surgically from Jan 1, 2013 to June 30, 2020 in West China Hospital. Medical records and pre-operative imaging results (MRI and DSA) of 103 patients were analyzed. Neurological function was evaluated by modified Aminoff-Logue Scale (mALS) consecutively at the day before surgery, 6 months and 1year after surgery. Pearson's $\chi 2$ test and binary logistic regression were used to find promising predictive factors.

A total of 76 patients (mean age 56 ± 11 years, 64 (84.2%) are male) with 76 fistulas met inclusive criteria. The mean interval from onset to diagnosis was 14 ± 15 months. Among the fistulas, 8 (10.5%) were located at T1-T6, 42 (55.3%) were located at T7-12, and 26 (34.2%) were located below T12. Compared with pre-operative mALS scores, 54 (71.06%) patients received improvement, and 22 (28.94%) patients felt worse or stable. The binary logistic regression reveals pre-operative mALS score and length of flow voids on T2-WI of pre-operative MRI are predictors of clinical improvement at 1 year after surgery in patients with SDAVFs.

This study suggests that pre-operative mALS score and length of flow voids on T2-WI of pre-operative MRI are predictors of clinical improvement for patients with SDAVFs [1].

1)
Luo M, Li J, Wu C, He M. Prognostic factors in patients with spinal dural arteriovenous fistulas treated surgically. Clin Neurol Neurosurg. 2021 Jun 8;207:106740. doi: 10.1016/j.clineuro.2021.106740. Epub ahead of print. PMID: 34119902.