Spinal dural arteriovenous fistula case series

Patients treated for spinal dural arteriovenous fistula (SDAVF) from 2005 to 2015 were studied for clinical and radiological features and outcomes following the obliteration of fistula.

Of the total 33 patients (27 males, six females), 19 patients were operated without the use of ICG, nine were operated with the use of ICG and successful embolization was done in five. The acute presentation was seen in five. A single feeder was seen in 20 patients, multiple in 13. The mean follow-up was 58 months. All patients in ICG group improved. Three out of 19 patients in the non-ICG group (15.78%) required re-operation. With the use of ICG, the improvement in the Aminoff Logue score was significantly better ($P < 0.005$). Embolization was tried in 13 cases, but successful in five (38%).

Surgery with intraoperative ICG shows the exact location of AVF. This decreases the chance of postoperative clinical deterioration and improves patient outcomes [1].

Spinal dural arteriovenous fistulas: clinical results and quality of life assessment with surgical treatment as a crucial therapy. The joint experience of two centers [2]

Safaee et al. performed a retrospective review of a prospectively maintained database by the senior author to assess clinical outcomes in patients undergoing surgical treatment of spinal dAVFs. Preoperative and postoperative motor and Aminoff and Logue disability scale (ALS) scores were collected. RESULTS A total of 41 patients with 44 spinal dAVFs were identified, with a mean patient age of 64 years. The mean symptom duration was 14 months, with weakness (82%), urinary symptoms (47%), and sensory symptoms (29%) at presentation. The fistula locations were as follows: 30 thoracic, 9 lumbar, 3 sacral, and 2 cervical. Five patients had normal motor and ALS scores at presentation. Among the remaining 36 patients with motor deficits or abnormal gait and micturition at presentation, 78% experienced an improvement while the remaining 22% continued to be stable. There was a trend toward improved outcomes in patients with shorter symptom duration; mean symptom duration among patients with clinical improvement was 13 months compared with 22 months among those without improvement. Additionally, rates of improvement were higher for lower thoracic and lumbosacral dAVFs (85% and 83%) compared with those in the upper thoracic spine (57%). No patient developed recurrent fistulas or worsening neurological deficits. CONCLUSIONS Surgery is associated with excellent outcomes in the treatment of spinal dAVFs. Early diagnosis and treatment are critical, with a trend toward improved outcomes. No patient in this study had fistula recurrence or worsening of symptoms. Among patients with abnormal motor or ALS scores, 78% improved after surgery. Therapeutic embolization is an option for some lesions, but for cases with unfavorable anatomy where embolization is not feasible, surgery is a safe option associated with high success [3].

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