Alfredo Pompili et al., J Spine 2016, 5:3(Suppl)
http://dx.doi.org/10.4172/2165-7939.C1.002

Unilateral laminectomy approach for removal of intradural benign tumors other than Schwannomas and Meningiomas

Alfredo Pompili, Fabrizio Caroli, Francesco Crispo, Laura Raus and **Stefano Telera**
Neurosurgical Dept, "Regina Elena" Cancer national Institute, Italy

Introduction: The unilateral approach for the removal of spinal schwannomas and meningiomas is a well known procedure. In our experience we had very good results, mainly as postoperative immediate and late pain, in 70 patients with schwannoma and 27 with meningioma. Stability was preserved in all cases and no external bracing was necessary.

Methods: From 2005 to 2014 we operated upon 13 patients with lumbar ependymoma (all myxopapillary) and 2 with conus medullaris dermoid tumor. Two patients had multiple tumors: one 5, removed in two times, one 2, removed at the same procedure. There were 8 females and 7 males, mean age was 42 yrs (17-74)

Results: The most relevant symptom was pain, that was present in 13/15 cases, from grade 2 to 4 according to the Dennis Pain Scale: mean 3.2. Neurological impairment was recorded in 3 cases and evaluated according with the modified Mc Cormick scale: 1 was grade 4 due to previous multiple operations for cerebellar ependymoma, the other scored 2 and 3 (paraparesis), mild sensitive deficit was not considered. Sphincterial impairment was relevant in 2.Preoperative mean Karnowsky Performance Score (KPS) was 78. All patients were operated upon with unilateral laminectomy according to the technique that we described in previous papers. For large lumbar epemdymomas it is mandatory to reduce the volume with an ultrasonic device. Cranial and caudal subaracnoid space should be carefully packed with cottonoids to avoid dissemination. Dermoid tumors, once recognazied intraoperatively, should be removed subtotally, avoiding improper attempts that could damage the conus medullaris.

Multiple ependymomas were removed in a one-stage operation, two approaches, in one case and in two different operations for the case with five tumors.

Postoperatively, pain improved or disappeared in all patients. At one year 1 patient had low back pain (2 as for Dennis pain scale). As regarding neurological function the patient that was severely impaired did not recover. All the others were considered as I grade in the Mc Cormick scale. Post-operative KPS (that is greatly influenced by pain) improved in all, and raised to mean 95 points. Sphyncterial disturbances occurred in the immediate postoperative period in 3 cases, lasting 2-3 months. One patient, that had had two operations for multiple lesions had a subfascial CSF collection, with severe orthostatic headache. Both resolved spontaneously with bed rest for 4 weeks. None had external bracing and/or spinal late instability. At late follow up (1-10 yrs) none had recurrence, apart from the young lady with metastatic ependymoma that died at 3 years with intracranial dissemination.

Conclusions: The unilateral approach is suitable also for conus-caudal ependymomas and other tumors, notably dermoids. The removal is rather easy in experienced hands. This approach should be adopted in all high flow neurosurgical facilities that deal with spinal intradural tumors.

alfredopompili@tiscali.it

Notes: