

Extraspinal-Interdural Surgical Approach For C2 Neurinomas—Report Of An Experience With 50 Cases

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Objective:

We report our experience with surgery in 50 patients with C2 neurinomas. The anatomic subtleties of these discrete forms of tumors and their surgical implications are analyzed.

Methods:

During the period 2006-2016, we operated on 50 patients with 55 C2 neurinomas. Type A tumors were located within the spinal canal, type B tumors were located in the lateral gutter, and type C tumors had a paraspinal extension. By working within the dural confines of the tumor and appropriately angulating the microscope, the entire tumor bulk extending into 1 or all 3 compartments was resected. Follow-up duration ranged from 3 months to 10 years (mean 68 months).

Results:

This series included 36 male and 14 female patients. Age range of patients was 14-70 years (mean age 36 years). Progressive symptoms of myelopathy were present in 41 patients. There were 16 type A + B tumors, 27 type B tumors, 10 type B + C tumors, and 2 type A + B + C tumors. All patients experienced symptom improvement after surgery and were able to resume their normal lifestyle.

Conclusions:

C2 neurinomas arise in the region of the C2 ganglion, and despite the fact that some achieve a large size, they remain confined within the dura. Radical tumor resection can be achieved by working within the layers of the dural cover. Bone removal and opening of spinal dura for tumor exposure and resection can be avoided.