Posterior Cervical Microscopic Foraminotomy and Discectomy Using CO2 Laser in Unilateral Cervical Radiculopathy

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Purpose: To evaluate the feasibility of using CO2 laser in posterior foraminotomy and discectomy. We report several operative experiences of unilateral cervical foraminal stenosis cases by using microscope and CO2 laser.

Materials and methods: 12 patients were treated by posterior foraminotomy & discectomy with microscope and CO2 laser at our hospital between 2006 and 2008. We confirmed symptomatic unilateral cervical foraminal stenosis by preoperative MRI & CT. 10 patients had been done single level foraminotomy and 2 patients had been done two level foraminotomies. In annulotomy and discectomy, we used about 300 jouls of CO2 laser energy.

Results: All patients had improved or resolved previous radicular symptoms. We confirmed that ventral foraminal lesion was removed and foraminal space was widened by postoperative MRI in all cases. Two patients had transient axial neck pain. No surgical related complications were happened in our cases.

Conclusion: In selective limited cases for unilateral cervical foraminal stenosis, the posterior foraminotomy and discectomy by using microscope and CO2 laser can be alternative useful method.