6th International Congress of the World Federation of Skull Base Societies
May 18, 2012　Brighton, England

Results of surgery for jugular foramen schwannoma

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Objectives: Jugular foramen schwannoma is relatively rare tumor. The author retrospectively reviewed the surgical results and analyzed the resection rate and its complications.

Design: Retrospective cohort of the surgical series.

Patients:Fourteen cases with jugular foramen schwannoma were surgically treated during the last 14 years (female/male=8/6). Average age was 35.4 years, and the follow-up was 7.3 years in average. The surgical approach was the posterior approach (without mastoidectomy) in 8 cases, and the posterolateral approach (with mastoidectomy) in 6 cases. When possible, subcapsular removal was performed to preserve cranial nerve function. Postoperative complications focusing on lower cranial nerve function were evaluated.

Results: Total and near total (>95%) removal　was achieved in 11 cases (76%). Both approaches could achieve a similar resection rate. Postoperative CSF subcutaneous leakage and meningitis occurred in 1 cases, which resolved conservatively. Ten patients exhibited postoperative hoarseness (71%), 4 of which became permanent (mild hoarseness, 28%). Though ten patients similarly exhibited dysphagia postoperatively, only 4 patients required tube feeding for several weeks (28%). However, these patients finally recovered and became capable of taking food orally in daily life. One patient had recurrence 4 years later, which were again surgically removed.

Conclusion: Functional preservation of lower cranial nerves is a crucial issue in the surgical treatment of jugular foramen schwannoma. Though total and near total resection rate might be low (76%), this surgical strategy provides acceptable preservation rate of lower cranial nerve function, with relatively low recurrence rate at 5 years (7%).