Transtemporal Suprajugular Approach with Neck Dissection for Jugular Foramen Tumor Resection: Operative Video

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Abstract

This video demonstrates the transmastoid suprajugular approach with neck dissection to a solitary fibrous tumor involving the jugular foramen and upper cervical region. This patient was a 39-year-old man who presented with dysphagia and cranial nerve (CN) XI and CN XII palsies. Imaging revealed a large homogenously enhancing lesion involving the jugular foramen and extending into the retropharyngeal space (Fig. 1). Radiographic findings supported a diagnosis of jugular foramen schwannoma. After an initial period of observation, the tumor demonstrated significant growth, and the patient agreed to proceed with surgery. The suprajugular approach allowed for exposure and resection of the tumor without mobilization of the facial nerve. The patient had an excellent clinical outcome with House–Brackmann grade-1 facial function, safely tolerated a regular diet, had intact CN XI function, and had a stable CN XII palsy (Fig. 2). Pathology findings identified the tumor as a hemangiopericytoma World Health Organization grade 1 (solitary fibrous tumor). The link to the video can be found at: https://youtu.be/C4sPyHcLMA0.

Keywords
► endoscopic-assisted microsurgery
► jugular foramen
► solitary fibrous tumor
► transtemporal suprajugular approach

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Fig. 1  Sagittal (left), coronal (middle), and axial (right) preoperative (Preop) magnetic resonance imaging (MRI) of a jugular foramen schwannoma. (Used with permission from Barrow Neurological Institute, Phoenix, Arizona.)

Fig. 2  Sagittal (left), coronal (middle), and axial (right) postoperative (Postop) magnetic resonance imaging (MRI) of a jugular foramen schwannoma. (Used with permission from Barrow Neurological Institute, Phoenix, Arizona.)