Transjugular transsigmoid approach

The infralabyrinthine transjugular transsigmoid approach with high cervical exposure under continuous vagus nerve monitoring enables gross total resection of triple dumbbell-shaped jugular foramen schwannomas, aiming at surgical cure of these benign tumors for appropriately selected patients [1].

A 47-year-old woman presented with progressive hearing loss, pulsatile tinnitus, and hemifacial spasm. Neuroimaging displayed a hypervascular tumor occupying the temporal bone, extending to the cervical region through the jugular foramen, and to the external auditory canal. Preoperative feeder occlusion was successfully performed without any additional symptoms, while carefully evaluating the provocative test. Near-total resection of the tumor was achieved through the transjugular transsigmoid approach with high-cervical exposure under detailed neuromonitoring, including continuous facial nerve monitoring and auditory brainstem response. In this patient, in whom the tumor did not invade intradurally and the sigmoid sinus was already occluded preoperatively, the sinus was managed only by coagulation, to avoid unnecessary dural opening and the risk of cerebrospinal fluid leakage. Anterior facial nerve rerouting was not required since the tumor removal was accomplished through the corridor above and below the fallopian bridge. The patient had no new neurological deficits, and her pulsatile tinnitus and hemifacial spasm disappeared after the surgery. Her hearing disturbance improved postoperatively. The link to the video can be found at: https://youtu.be/gqf3dxHlv_0 [2].

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