23 patients. One patient (a 73-year-old woman) with normal lower cranial nerves function was managed with watchful expectancy and regular clinical and radiologic follow ups. The infratemporal fossa approach-type A (IFTA-A) was performed in 3 cases. One patient underwent a transcochlear-transjugular approach. Of the 22 patients surgically treated, 12 patients were operated on by the petrooccipital transsigmoid approach (POTS). In one patient with a preoperative dead ear, a combined POTS-translabyrinthine approach was adopted. Two patients were operated on through the POTS approach combined with the transotic approach. In another case (a 67-year-old woman), a subtotal tumor removal through a transcervical approach was planned to resect a 10-cm mass in the neck. One patient underwent a first-stage combined transcervical-subtotal petrosectomy approach to remove a huge tumor in the neck; the second-stage intradural removal of the tumor was accomplished through a translabyrinthine-transsigmoid-transjugular approach. The last patient underwent a first-stage combined transcervical-subtotal petrosectomy approach to remove the neck tumor component; this patient is now waiting for the second-stage intradural removal of the tumor. Complete tumor removal was accomplished in 21 cases and in one case, a residual schwannoma was left in place in the area of the jugular foramen. The 3 patients who were operated on by IFTA-A underwent permanent anterior transposition of the facial nerve. At 1-year follow up, 2 of these patients had House-Brackmann grade I and 1 reached grade IV. The patient who underwent a transcochlear-transjugular approach had a permanent posterior transposition of the facial nerve. At 1-year follow up, he had grade III facial nerve function. Postoperative facial nerve function was normal (House-Brackmann grade I) in all patients operated on by the POTS approach. Twelve patients had hearing-preserving surgery using the POTS approach. Good hearing was preserved in 10 cases (83.3%), the majority of whom (58.3%) maintained their preoperative hearing level. There was no perioperative mortality. One patient (4.5%) experienced a postoperative cerebrospinal fluid leak. After surgery, all patients did not recover the function of the preoperatively paralyzed lower cranial nerves. A new deficit of one or more of the lower cranial nerves was recorded in 50% of cases. So far, no patient has experienced recurrence during the follow-up period as ascertained by computed tomography or magnetic resonance imaging.

Surgical resection is the treatment of choice for jugular foramen schwannomas. The POTS approach allowed single-stage, total tumor removal with preservation of the facial nerve and of the middle and inner ear functions in the majority of cases. Despite the advances in skull base surgery, new postoperative lower cranial nerve deficits still represent a challenge [1)].

1)
Sanna M, Bacciu A, Falcioni M, Taibah A. Surgical management of jugular foramen schwannomas with hearing and facial nerve function preservation: a series of 23 cases and review of the literature. Laryngoscope. 2006 Dec;116(12):2191-204. Review. PubMed PMID: 17146395.