Arianna Di Stadio, ENT and Stem Cell 2018, Volume 8
DOI: 10.4066/2250-0359-C1-002

Endoscope assisted retro sigmoid approach and internal auditory nerve canal compression syndromes

Arianna Di Stadio
Sapienza University of Rome, Italy

Introduction: The use of surgical decompression for treating nerve compression due to the loop in the internal auditory canal is not always accepted due to the risk related to the surgical procedure. Currently a new surgical technique allows surgeons to work in safer conditions.

Objective: To report the results with endoscope-assisted retro sigmoid approach for facial nerve or cochlear nerve microvascular decompression in hemifacial spasm due to neurovascular conflict.

Methods: We carried out a prospective study in a tertiary referral centre observing 12 (5 male, 7 female) patients affected by hemifacial spasm, and three patients (2 men, 1 woman) affected from tinnitus due to a compression of cochlear nerve that underwent to an endoscope assisted retro sigmoid approach for microvascular decompression. We evaluated intra-operative findings, postoperative resolution and complication rates.

Results: Hemifacial spasm resolution was noticed in 9/12 (75%) cases within 24 hours after surgery and in 12/12 (100%) subjects within 45 days. A significant ($p < 0.001$) correlation between preoperative historical duration of hemifacial spasm and postoperative recovery timing was recorded. Only 1 patient had a complication (meningitis), which resolved after intravenous antibiotics with no sequelae. No cases of cerebrospinal fluid leak, facial palsy or hearing impairment were recorded. Hemifacial spasm recurrence was noticed in the only subject where the neurovascular conflict was due to a vein within the internal auditory canal. None of the patients with tinnitus reported short-term or long-term complications after surgery. After surgery, tinnitus resolved immediately in 2 patients, whereas in the other patient symptoms persisted although they improved; in all patients, hearing was preserved and ABR improved.

Conclusions: The endoscope assisted retro sigmoid approach technique offers an optimal visualization of the neurovascular conflict thorough a minimally invasive approach, thus allowing an accurate decompression of the facial nerve with low complication rates. Due to the less invasive nature, the procedure should be considered in functional surgery of the cerebellar pontine angle as hemifacial spasm treatment or cochlear nerve compression.

Speaker Biography

Arianna Di Stadio is an Otolaryngologist, specialized in otology/neurotology, facial plastic surgery, and microsurgery. She is currently responsible for the otolaryngology research line at the San Camillo Hospital IRCCS in Venice, Italy. She collaborates with the Columbia University of New York and the Wayne University in Detroit. She is the reviewer for several International peer-reviewed journals and she is the author of several articles published in international journals.

e: ariannadistadio@hotmail.com

Notes: