O2.07. FIRST 100 VESTIBULAR SCHWANNOMAS TREATED WITH GAMMA KNIFE IN SPAIN: LONG-TERM OUTCOME
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INTRODUCTION: Gamma Knife radiosurgery (GKRS) has become an established treatment option for vestibular schwannomas (VS). The aim of this study was to investigate long-term results regarding tumor volume control, neurological deficits outcome, effectiveness or treatment failure requiring surgery or reirradiation. METHODS: Data from the cohort of the first 100 consecutive patients with a sporadic VS diagnosis (not Neurofibromatosis 2 related SV) treated with GKRS at our Unit between 1993 and 1997 were retrospectively reviewed from a prospectively maintained database. Six were purely intracanalicular and 94 extended into the cerebello-pontine angle, with an average volume larger than the global cohort of 877 VS. The median age at the time of treatment was 54.08 years. Twenty patients had a previous surgical resection. The median prescribed dose was 12.32 Gy. Follow-up consisted of regular MRI, and audiological and neurological examination. RESULTS: Eighty percent of the patients completed a 10 year follow-up (range 0.63-16.32); imaging tests revealed that in 72.15% of them the tumor volume decreased by a mean of 46%, after an average time of 1.85 years (range 0.5-13.06), while in 15.18% stability was observed. Hearing loss, tinnitus and dizziness, previous most common symptoms (95%, 39% and 24% respectively), did not worsen significantly after treatment. Treatment failures as tumor growth progression, occurred in 10 patients at a mean of 33 months; salvage treatment was surgery in 7 and one patient was reirradiated. As for neuropathies, none of the 18 patients with a previously affected facial nerve worsened, while 3 of 26 with trigeminal nerve dysfunction did. There have been no new neuropathies, radiographic abnormalities in brain stem, second tumors or tumoral malignant transformation. CONCLUSIONS: Our long-term results of GKRS in VS show a favorable neurological outcome, maintained excellent tumor growth control, without the development of secondary tumors or malignant transformation. We recommend a prolonged follow-up to better assess GKRS results in VS treatment.