Gasserian ganglion neurosarcoidosis mimicking trigeminal schwannoma

Neurosarcoïdose do gânglio de gasser simulando um schwannoma trigeminal

Tatiana Goyanna Lyra1, Hae Won Lee1, Eduardo de Arnaldo Silva Vellutini1,2, Maria da Graça Morges Martin1,3, Ana Paula Torres Cardoso1, Luis Filipe de Souza Godoy1, Giovanni Guido Cerri1,4, Claudia da Costa Leite4,5,6

A MRI of a 59-year-old male with right hemifacial hypoesthesia showed a low signal T2-weighted expansive mass in the right Meckel’s cave. After failure of initial conservative treatment (Figure 1), surgery was done with partial lesion resection (Figure 2). The pathology and chest CT were consistent with granulomatous disease: neurosarcoidosis. On follow-up the lesion increased in size but after corticosteroids it reversed (Figure 3). The involvement of the trigeminal nerve is very rare with only few cases described in literature. Although rare, sarcoid infiltration of the Gasserian ganglion must be considered in the differential diagnosis of an isolated mass at Meckel’s cave, especially if it has T2 hypointensity signal.

(A) Initial pre-operative enhanced axial T1-weighted MR images shows an expansive lesion in the right Meckel’s cave; (B) Follow up one month later demonstrates enlargement of the lesion with a larger pre-pontine cistern component; (C) Axial T2-weighted image obtained at the same time as B shows that the Meckel’s cave mass presents an unusual hypointense signal on this sequence. Sarcoidosis may produce a hyper- or hypointense signal on T2-WI, an iso- or hypointense signal on T1-WI and intense post-contrast enhancement with thickening of the nerve. In our patient, MR imaging revealed a T2 low signal mass in the right Meckel’s cave that was interpreted as a possible unilateral schwannoma/neurofibroma. Most of neurosarcoidosis lesions that presents as masses have a very low signal on T2-WI, which can be a clue to consider sarcoidosis in the differential diagnosis, although not exclusive, remembering IGG4-related disease as another possible etiology.

Figure 1. Initial pre-operative images and follow up one month later.
Figure 2. Early post-operative evaluation.

Figure 3. Follow up after surgery with steroid therapy.

References


