Cerebellopontine Angle Epidermoid Cyst

Quiste epidermoide del ángulo pontocerebeloso

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Epidermoid cysts are very rare lesions of the central nervous system, with the cerebellopontine angle (CPA) being its most common intracranial location. They represent 4% of the lesions at this level, occupying third place in frequency behind meningiomas (6%) and vestibular schwannomas (90%).

They are benign lesions consisting of a fine capsule of keratinised stratified squamous epithelium, of slow, lineal growth. They are distributed throughout the subarachnoid space and remain silent for a long time; this means that the cysts are in advanced states when they are diagnosed.

Figure 1 T1-weighted (A), T2-weighted (B) and post-contrast MR images (C), which show a cystic lesion in the cerebellopontine angle.

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Patients report a mean of 4 years from the start of symptoms until diagnosis. The most common symptoms are headache, trigeminal nerve involvement (neuralgia or hypoesthesia) and cochlear-vestibular involvement. Our patient indicated headache and left hypoacusis of 2 years’ evolution, with the bilateral presbycusis audiometry being practically symmetric.

Magnetic resonance (MR) imaging showed a cystic lesion with lobulated borders, centred in the right CPA. Signal intensity was slightly heterogeneous in T1-weighted (Fig. 1a) and in T2-weighted sequences (Fig. 1b), not suppressed with the FLAIR sequence (Fig. 2) and not emphasised following contrast administration (Fig. 1c). It characteristically restricted diffusion (Fig. 3a B1000; Fig. 3b ADC map). It extended to the temporal fossa and the 4th ventricle, surrounding cranial nerves and vessels. These findings corresponded to an epidermoid cyst, so the patient was referred to the Neurosurgery Service.

We consider promoting the diagnosis of CPA tumours to be important, given that 82% of the cases are not studied upon first contact; consequently, the problem progresses until more severe signs and symptoms appear, motivating the patient to consult again.

Figure 2  FLAIR sequence MR image, with the lesion showing heterogeneous signal intensity.

Figure 3  Diffusion (A) and ADC Map (B) MR images; the lesion characteristically restricts the diffusion.