Xanthogranulomas of choroid plexus

A 60-year-old female patient presented with intermittent dull occipital headache for 6 months.

MRI was performed, which incidentally showed symmetrical nodular cystic masses in the region of glomus of choroid plexus in both lateral ventricles. The masses appear slightly hyperintense to CSF on T1 weighted images (Fig. 1), hyperintense on T2 weighted images (Fig. 2), hypointense on FLAIR (Fig. 3) and appear bright on diffusion-weighted and ADC sequences (Fig. 4).

Discussion:

Choroid plexus xanthogranuloma are also known as choroid plexus cysts. They are the most common intracranial cysts occurring at both ends of the age spectrum [1].

They can be either congenital or acquired. Acquired lesions are more common and develop from the degenerating choroid plexus epithelium which coalesce into macrocysts and incites a xanthomatous response [1].

Most lesions are bilateral and are located in the glomus of choroid plexus [1].

They are asymptomatic and in adults often detected incidentally. Larger lesions can produce symptoms like non-specific headache or altered mental status due to mass effect. Uncommonly they are located in the third ventricle and can produce obstructive hydrocephalus [2].

On MRI, they do not strictly follow the cerebrospinal fluid (CSF) signal intensity. They are slightly hyperintense to CSF on T1 weighted images, hyperintense on T2 weighted and show variable signal intensity on FLAIR images. On diffusion-weighted images, choroid plexus cysts show high signal intensity but are isointense on corresponding ADC images, likely representing pseudorestriction 1 or T2 shine-through effect [3].

Take home message:
1. Xanthogranulomas of choroid plexus are the most common intracranial cysts.
2. They are asymptomatic and often detected incidentally in adults.
3. They show high signal intensity on diffusion-weighted imaging, but are isointense on ADC, likely representing
pseudorestriction or T2 shine-through effect.

**Differential Diagnosis List:** Choroid plexus xanthogranuloma, Ependymal cyst, Epidermoid cyst

**Final Diagnosis:** Choroid plexus xanthogranuloma

**References:**


Description: Nodular cystic masses (white arrow) which appear slightly hyperintense to CSF in the atria of lateral ventricle. Origin: Ramakrishna N, Department of Radiology, Kasturba Medical College, Manipal, India.
Description: Symmetric hyperintense nodular cystic masses (white arrows) in the atria of both lateral ventricles. Origin: Ramakrishna N, Department of Radiology, Kasturba Medical College, Manipal, India.
**Description:** Incompletely suppressed symmetric nodular cystic masses (white arrows) in the atria of both lateral ventricles. **Origin:** Ramakrishna N, Department of Radiology, Kasturba Medical College, Manipal, India.
Description: Masses (white arrows) are hyperintense on diffusion and ADC, likely representing pseudorestriction/T2 shine-through effect. Origin: Ramakrishna N, Department of Radiology, Kasturba Medical College, Manipal, India.