INTRODUCTION

Intracranial lipoma is a rare entity, accounting for less than 0.5% of intracranial tumors, which usually develops in the callosal cisterns. We report a case of lipoma with an unusual location; in the high parietal convexity combined with massive calcification, and no underlying vascular malformation or congenital anomaly.

CASE REPORT

A 63-year-old male visited our institute with a chief complaint of an incidentally found intracranial vascular malformation about which he had been informed in a local clinic. He had a history of concussion about 20 years prior, and minor head trauma about 3 months prior. However, he had no referred associated symptoms or signs.

A week before the patient visited our institute, he had a minor headache with dizziness, tinnitus, and facial palsy on the left side. Therefore, he went to see an otolaryngologist at a local clinic. During the examination, he was told that an arteriovenous malformation-like lesion had been found incidentally in the convexity of the right parietal lobe on the brain MRI. He was referred to our institute to check the brain MRI and for further evaluation.

On the MRI performed at our institute, we noted an irregular-shaped mass-like lesion under the dura mater, with high signal intensity on a T1-weighted image (T1WI), and intermediate signal intensity on a T2-weighted image (T2WI), and a fluid attenuated inversion recovery (FLAIR) image. It was differentially diagnosed as a lipomatous mass or subdural hematoma. Below the mass, massive calcification of low signal intensity was evident on all pulse sequences.

Contrast-enhanced T1WI with fat suppression revealed fat-suppressed, heterogeneous intermediate signal intensity of the mass without definite enhancement. There was no evidence of vascular malformation in the brain MRI (Fig. 1).

A brain CT was performed after a brain MRI, and revealed a distinct fatty mass overlying the massive calcifications over the
convexity of the parietal lobe. Based on the radiologic findings, the lesion could be diagnosed as lipoma with massive calcification (Fig. 2). After conservative treatment for the dizziness, the patient was discharged and scheduled to be followed up.

**DISCUSSION**

Intracranial lipoma generally occurs in the midline structure and subarachnoid cistern (1-3). It is also sometimes found in the interpeduncular cistern, cerebellopontine angle, Sylvian, and prepontine cistern. The most common type of intracranial lipoma is an interhemispheric lipoma (4).

Yilmaz et al. (9) reported a clinical study about intracranial lipoma in 14 patients, of which the most frequent locations were the quadrigeminal cistern in five cases, the dorsal mesencephalic area in four, pericallosal lipoma in three, and only...
Eung Tae Kim, et al

submit.radiology.or.kr


535

moid, teratoma, lipomatous meningioma, and so on. Epidermoids and teratomas present as cystic lesions that can contain localized fat components as well as other associated specific components. The fat droplet of a dermoid/epidermoid will spread to the subarachnoid cistern or ventricles if it is ruptured (13). There are some reports of lipomatous meningiomas with signal intensities similar to a lipoma. However, the contrast enhancement and typical attachment to the dura differentiate lipomatous meningioma from a lipoma (14). Although our diagnosis was not surgically confirmed due to benign nature of the lipoma, it could be radiologically diagnosed on CT and MR scans on the basis of its CT Hounsfield number, T1 shortening, and by means of the fat saturation technique. It was accompanied by massive calcification under the lipoma mass, with low signal intensity on T1- and T2-weighted MR images and high density on CT scan. A follow-up of the patient is planned.

We report an intracranial convexity lipoma combined with massive calcification in the unusual location of high parietal convexity.

REFERENCES

1. Faerber EN, Wolpert SM. The value of computed tomography in the diagnosis of intracranial lipomata. J Comput...
Intracranial Convexity Lipoma with Massive Calcification


