Pericallosal Lipoma with Intraventricular Extension

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Clinical Image Description

Clinical history

A 24 years old female presented with intermittent headache of one year duration. Otherwise, she has no other pertinent history.

Imaging findings

- There is well defined hypodense fat attenuating, curvilinear, pericallosal lesion with lobulated surface (yellow arrow in figure 5). It extends from the level of anterior aspect of body of corpus callosum and posteriorly to wrap-around the splenium of corpus callosum with associated local mass effect. The posterior part of corpus callosum appears hypoplastic. The lesion has extension into the posterior part of body of left lateral ventricle (red arrow in figure 2).

Discussion

Pericallosal lipomas are rare benign congenital fat-containing lesions occurring in the interhemispheric fissure closely related to the corpus callosum, which may be abnormal. It is the most common location for an intracranial lipoma.

Clinical presentation

They are usually asymptomatic. They are detected incidentally during brain imaging for other purposes. But, symptoms like headache, seizures, extremity weakness and memory loss are usually related to other associated anomalies or disorders. Our patient has only intermittent type of headache.

Radiographic features

The diagnosis of pericallosal lipoma can be easily made using CT or MR imaging. Pericallosal lipomas have two morphological types: Tubulonodular and Curvilinear. CT is diagnostic, demonstrating fat density mass (-40 to -120 HU).

MRI is useful in characterization of the clear extent of the lesion and other associated anomalies. They follow fat signal in all sequences i.e. T1 and T2 hyperintense with suppression in fat saturated sequences and show no post contrast enhancement.

Pericallosal lipomas may have intraventricular extension as our case.

Management

Pericallosal lipomas usually don’t require treatments. Treatment is indicated for those presenting in seizure.

Surgery is rarely indicated as it has high morbidity. Surgery can be considered in cases of uncontrolled seizure and hydrocephalus.

Differential diagnosis

*Pericallosal lipoma with intraventricular extension.
*Intracranial dermoid cyst (Ruptured).
*Fatty falx cerebri.

Final diagnosis

**Pericallosal lipoma (curvilinear subtype) with intraventricular extension.

Figure 2: Axial non-contrast CT scan of the brain showing well defined elongated fat density lesion in the interhemispheric region (figure 2a), which has extension to the into the posterior portion of body of the left lateral ventricle (represented by red arrow in figure 2b)

Figure 3: Coronal non-contrast CT scan of the brain revealing well defined hypodense fat attenuating, curvilinear, pericallosal lesion with lobulated surface (yellow arrow). It extends from the level of anterior aspect of body of corpus callosum and posteriorly to wrap-around the splenium of corpus callosum with associated local mass effect. The posterior part of corpus callosum appears hypoplastic.