Pericallosal lipoma: A rare cause of persistent headache.

Betul Kilic, Serdal Gungor
Inonu University Medical Faculty, Department of Pediatric Neurology, Malatya, Turkey.

Abstract

Objectives: Intracranial lipomas are very rare tumors with an incidence of approximately 0.1% of intracranial tumours. They are mostly localized in the pericallosal region. The importance of this report is that it is the first case in childhood that indicates an association between persistent headache and pericallosal lipoma in the literature.

Case report: We observed an eleven year old male patient who was admitted to our pediatric emergency department because of a persistent headache that his cranial magnetic resonance imaging demonstrated to be a lipoma in the pericallosal region, occupying both anterior and posterior locations around the corpus callosum without any corpus callosum or other central nervous system anomalies.

Conclusion: Intracranial lipomas are usually asymptomatic and rare. They can be detected from computer tomography and magnetic resonance imaging. They are usually benign but may require surgery in symptomatic cases.

Keywords: Childhood, Magnetic resonance, Pericallosal lipoma, Persistent headache.
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Many theories have been produced in the pathogenesis of intracranial lipomas. Recent theories of lipomas are congenital malformation, as a result of the false differentiation of primitive mesenchymal tissue and ectopic tissue that is thought to produce [5,7]. This happens in the first trimester [5]. The primitive structure of meningeal tissue resorption, and mature adipose tissue differentiation is incorrectly located in the arachnoid space, so it causes calcification and formation of mature bone tissue [8,9]. Developmental malformation is not a true tumor [5]. Under this theory, the pathogenesis of embryogenesis are often described as accompanying the callosal and other cerebral hypoplasia. Associated anomalies depend on the location and size of lipoma.

Cranial CT and MRI findings are characteristic and patognomic. CT lipomas are homogenous, well-circumscribed, show contrast, and they are seen as a hypodense mass. The MRI is hyperintense on T1 and T2 weighted sequences, iso-hypointense on T2-weighted sequences and intracranial lipomas generally do not enhance. It appears to be lost in the fat-suppressed signal sequence. Interhemispheric lipomas, especially calcifications, are common in the fibrous capsule surrounding the lipoma [6,10]. Isolated corpus callosum lipomas are asymptomatic. Approximately half of the cases are detected incidentally. These cases include headache, seizures, weakness of the limbs, and patients tend to consult with psychological problems and memory problems [2,5]. In our case, there were no additional neurological symptoms except for recurrent and persistent headaches. There was no additional central nervous system pathology except corpus callosum lipoma.

The surgical removal of an intercranial is risky because of high mortality and morbidity due to its being attached to the environmental tissue containment and neurovascular structures. Lipomas do not particularly require surgery but it should be considered in cases of uncontrolled seizures, hydrocephalus, progressive dementia and increased intracranial pressure [2,5]. Rather than total removal, the surgical strategy should aim for decompression. Our case did not display surgical indications and he was observed in clinical follow-up.

References
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Correspondence to:
Betul Kilic,
Inönü University Medical Faculty,
Department of Pediatric Neurology, Malatya,
Turkey.
E-mail: betulkle82@gmail.com