



Intracranial Lipoma

Last Updated: April 27, 2021



Figure 1: This tectal plate lipoma demonstrates low density of fat on CT imaging (top left) and hyperintensity on T1WI (top right). (Bottom) Fat-suppression techniques should make the lesion appear dark, as on this

axial T2-weighted fat-saturated sequence.

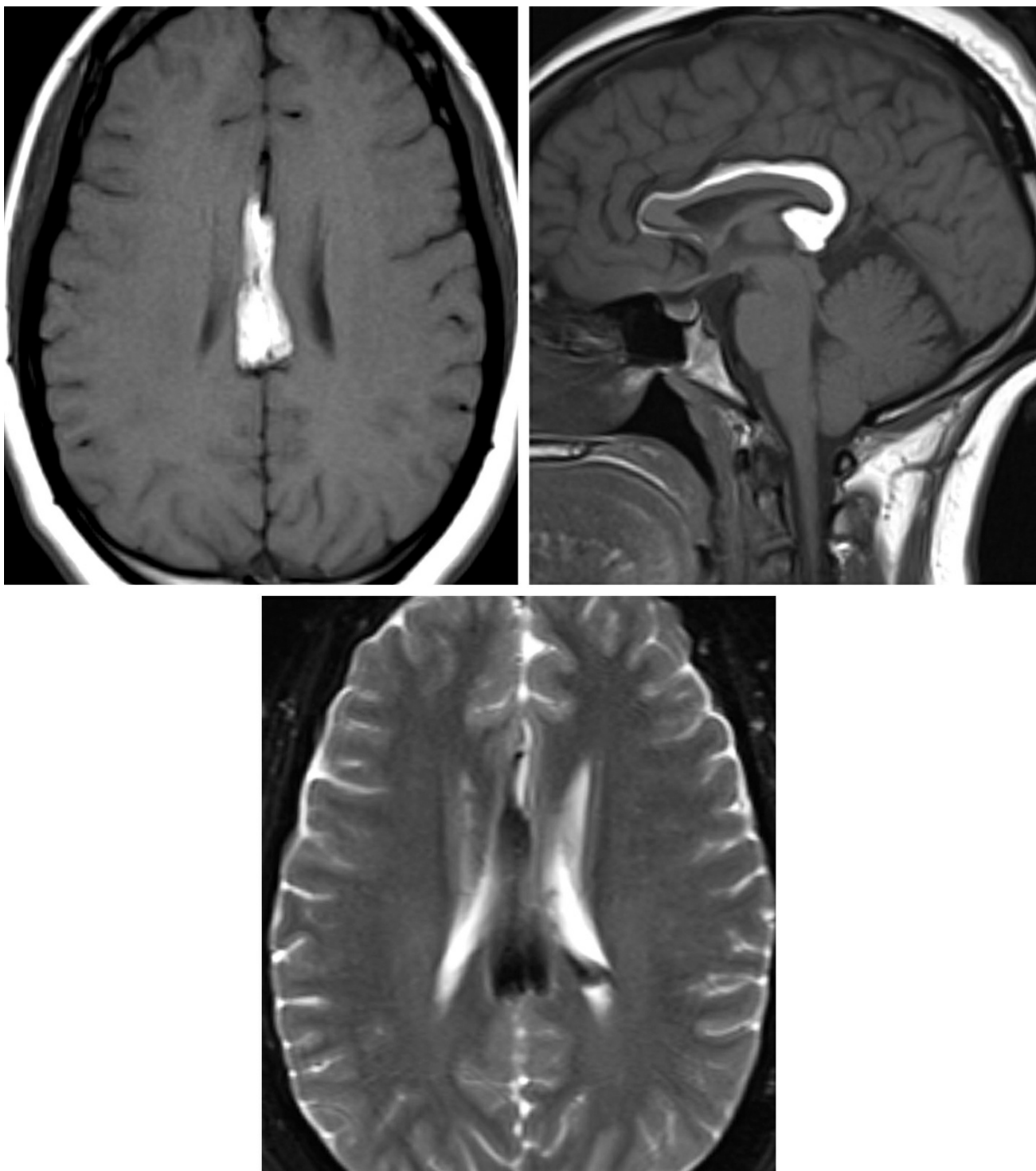


Figure 2: Axial (top left) and sagittal (top right) T1-weighted images demonstrate an intrinsically T1 hyperintense pericallosal mass that is suppressed on T2-weighted fat-saturation imaging (bottom). The appearance and location are classic for intracranial lipoma, resulting from a developmental failure of the meninx primitiva to involute.

BASIC DESCRIPTION

- Fat-containing developmental or congenital abnormalities of neural

crest origin

- Rarely neoplastic

PATHOLOGY

- Arise secondary to abnormal differentiation of the meninx primitiva
- Associated with other neural crest congenital anomalies in 60% of cases, often agenesis of the corpus callosum or underdevelopment of the inferior colliculus
- Located in the pericallosal region or within the quadrigeminal, suprasellar, or cerebellopontine angle cisterns

CLINICAL FEATURES

- All ages affected
- Common presenting signs/symptoms
 - Usually asymptomatic (incidental finding on imaging performed for other reasons)
- Treatment: usually no treatment required; resection or cerebrospinal fluid shunting if large with mass effect or hydrocephalus

IMAGING FEATURES

- General
 - Well-marginated, low-attenuation or high-signal-intensity mass (fat density)
- CT
 - Hypoattenuating (-20 to -100 Hounsfield units)
 - ±Peripheral calcification
 - No enhancement on contrast-enhanced CT imaging
- MRI
 - T1WI: hyperintense
 - T2WI: similar signal as scalp fat
 - Suppresses on fat-saturated sequences

- T1WI+C: no enhancement

IMAGING RECOMMENDATIONS

- CT imaging is often definitive, MRI without and with intravenous contrast might be necessary to exclude mimics

For more information, please see the corresponding chapter in [Radiopaedia](#).

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DOI: <https://doi.org/10.18791/nsatlas.v1.03.01.24>

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