

Lipomatous meningiomas

Lipomatous [meningiomas](#) are rare subtypes of meningiomas. First described by Bailey and Bucy in 1931 ¹⁾, “lipomatous” or “lipoblastic” refers to the cells observed in meningotheial neoplasms resembling adipocytes or lipoblasts, without the implication that those cells are immature or malignant ²⁾.

Lipomatous meningiomas are a metaplastic form of meningioma ³⁾ although there is ongoing debate regarding meningioma's pathogenesis as true metaplasia of the meningotheial cells or accumulation of lipids within the cells ^{4) 5) 6)}.

Lipomatous meningiomas are classically WHO grade I tumours with good prognosis following complete removal. There is very limited data on these tumours with less than 50 cases of lipomatous meningiomas being described throughout the literature ⁷⁾

Metaplastic lipomatous meningiomas can be defined as meningiomas with striking focal or widespread mesenchymal areas, including osseous, cartilaginous, lipomatous, myxoid, or xanthomatous tissue components ⁸⁾.

Lipomatous meningiomas reveal low mitotic rates. In our case the Ki-67 was 0.5%, which is in keeping with the findings of Tang et al., 2013, in which 14 out of 15 metaplastic meningiomas showed Ki-67 rates of less than 1%, including the two lipomatous meningiomas ⁹⁾. Bone invasion can be seen in meningiomas, yet it is not considered as a part of the grading classification. Recently there have been suggestions that lipomatous meningiomas occur from lipid accumulation due to metabolic abnormality of the neoplastic cells rather than true metaplasia of the meningioma cells ¹⁰⁾.

Throughout the English literature 41 cases of lipomatous meningiomas have been described ¹¹⁾, one associated with a secreting meningioma ¹²⁾ and another with a cerebral arteriovenous malformation ¹³⁾. No cases were associated with intraosseous extension, although there has been a previous report of a meningioma occurring at the site of an intraosseous lipoma ¹⁴⁾.

see [Intraosseous lipomatous meningioma](#)

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