

# Dural-Based Follicular Lymphoma Mimicking Meningioma With Favorable Response To Chemotherapy

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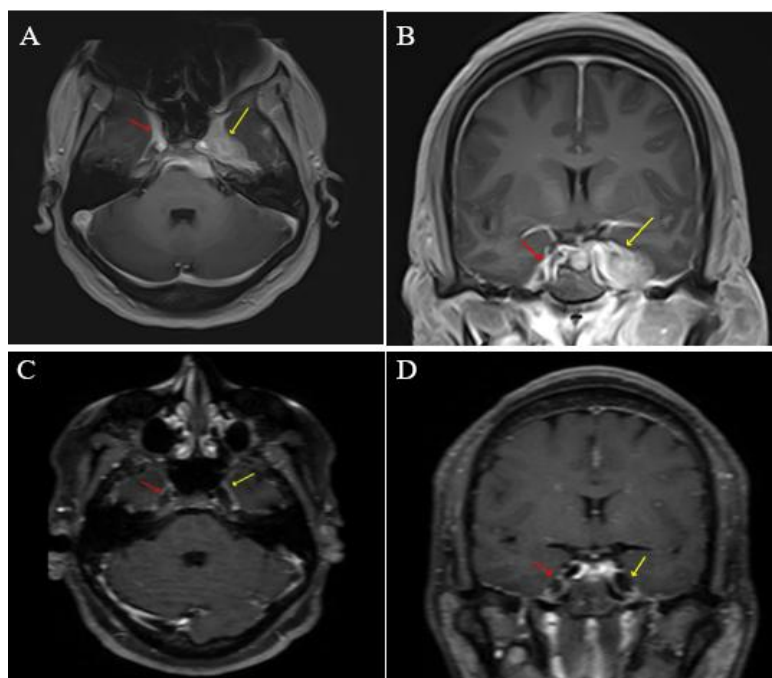
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## Case presentation

A 51-year-old female with history of stage IV Follicular Lymphoma (FL) initially placed on surveillance imaging for two years, started developing progressively worsening left-sided headache, jaw pain, and ear fullness. Physical examination revealed no focal neurological deficits. Magnetic Resonance Imaging (MRI) of the brain with gadolinium showed the presence of homogeneously enhancing dural-based lesions arising from the bilateral medial aspect of the middle cranial fossae, left greater than right with mass effect over the left inferomedial aspect of the temporal lobe (Figure 1 A, B). These dura-based lesions were concerning for either meningioma versus possible lymphomatous involvement with intracranial extension of her FL. Neither cerebrospinal fluid analysis nor dural biopsy were obtained at that time. Nevertheless, given the concern for progression of her FL, she received six cycles of bendamustine and rituximab with almost complete resolution of her headaches following the first cycle of treatment. The patient was then placed on maintenance rituximab monotherapy for an additional 18 months and had an updated systemic imaging along with MRI of the brain with gadolinium following the completion of her treatment revealing no evidence of lymphadenopathy and complete resolution of her dural-based lesions, respectively (Figure 1 C, D), suggesting that these dural lesions were most likely related to lymphomatous infiltration from her FL with overall favorable response to chemotherapy.



**Figure 1.** The figures shows magnetic resonance imaging (MRI) of the brain of 51-year female with stage IV follicular lymphoma. An axial (A) and coronal (B) T1 sequence with gadolinium show the presence of homogenously enhancing dural-based lesions in the medial aspect of bilateral, left greater than right (red arrow), middle cranial fossae arising from the greater sphenoid wings extending medially to bilateral cavernous sinues with significant dural thickening on the left side leading (Yellow arrow) to mass effect over the inferomedial aspect of the left temporal lobe with subsequent complete resolution following systemic treatment with chemoimmunotherapy (C, D). Also, notice the presence of dural thickening of the tentorium cerebelli over the left pons (A).

## Discussion

Lymphomatous involvement of the dura is very uncommon and often is related to marginal zone lymphoma with only a handful of case reports in the literature describing dural infiltration by FL [1]. Herein, we present another case of probable FL involving the dura in a 51-year-old female with favorable response to chemotherapy. FL is a very indolent slow growing non-Hodgkin's lymphoma that often affects elderly people and presents painless waxing and waning lymphadenopathy and rarely involves the central nervous system [2]. To the best of our knowledge, there are only 12 other cases of intracranial dural-based FL reported in the literature with the majority of them achieving almost complete resolution of these dural lesions following systemic chemotherapy or localized radiation therapy [2].

Though meningiomas are by the far the most common tumor arising from the dura, especially in females with peak incidence in the fifth and sixth decades [3], other less common dura-based neoplastic lesions that are occasionally encountered include solitary fibrous tumors, metastases and lymphomas, and are often diagnosed following surgical resection for presumed meningioma; thus, it is important to consider these entities especially in patients with systemic malignancy or lymphoma since systemic treatment or localized radiotherapy to the dura may lead to complete response which is uncommon for unresectable meningiomas, and can help minimize the morbidity and neurological sequelae in these patients.

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