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PULMONARY METASTASES IN RECURRENT MENINGIOMAS: FREQUENCY, PROGNOSIS, AND IDENTIFICATION BY (IN)-I-111-OCTREOTIDE IMAGING

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BACKGROUND: Meningioma is the most common primary intracranial tumor in adults, but it rarely metastasizes extracranially. Among potential sites of metastasis, lung is the most common, but the importance of lung metastases to prognosis is unknown. ¹¹¹In-Octreotide scintigraphy (octreotide scanning) has been recently described as a valuable modality to evaluate recurrent meningioma's response to treatment with somatostatin analog and has the potential to identify extracranial disease. **METHODS:** In this multicenter institutional review board approved study, we retrospectively analyzed the records of adult patients treated for recurrent meningioma who had previously undergone ¹¹¹In-Octreotide positron-emission tomography/computed tomography imaging (octreotide scintigraphy) and were found to have positive octreotide uptake in their lungs. **RESULTS:** We identified six cases of recurrent anaplastic meningioma with pulmonary mass lesions on octreotide scintigraphy (approximately 17% of all patients with this histologic diagnosis). Biopsy of the pulmonary masses confirmed the diagnosis of metastatic meningioma in one of the cases. The patients with metastatic pulmonary involvement identified by octreotide scintigraphy had an overall survival of just 6 months, which is a significantly worse prognosis than the patients from previously published series with unknown systemic disease status who survived an average of 11 months ($p = 0.03$). **CONCLUSIONS:** ¹¹¹In-Octreotide scintigraphy is a useful tool for simultaneously detecting meningioma metastases to the lungs. The presence of pulmonary metastases is a significant negative prognostic factor, and the relative frequency of this finding suggests that all patients with recurrent meningiomas should undergo systemic staging. A prospective study to confirm this finding is warranted.

NO-05. PULMONARY METASTASES IN RECURRENT MENINGIOMAS: FREQUENCY, PROGNOSIS, AND IDENTIFICATION BY ¹¹¹IN-OCTREOTIDE IMAGING
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