NO-42. PULMONARY METASTASES IN RECURRENT, TREATMENT-RESISTANT MENINGIOMA: PROGNOSIS AND IDENTIFICATION BY IN-OCTREOTIDE IMAGING

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BACKGROUND: Meningioma is the most common extra-axial primary intracranial tumor in adults that rarely metastasizes extraneural. Among recognized sites of metastases, lung is the most common, but the importance of lung metastases relative to prognosis is unknown. ^{111}In-octreotide scintigraphy (octreotide scanning) is a valuable imaging modality to evaluate meningiomas and response to treatment with somatostatin analogues and has the potential to identify extracranial metastatic disease. METHODS: In this retrospective multicenter study, adult patients treated for recurrent meningioma who had undergone ^{111}In-octreotide positron-emission tomography/computed tomography (PET/CT) imaging (octreotide scintigraphy) and were found to have positive octreotide uptake in their lungs were identified. RESULTS: Six cases were identified with recurrent meningioma (after surgery, radiation therapy, and at least one chemotherapy agent) and pulmonary lesions by octreotide scintigraphy. Biopsy of a pulmonary lesion in one patient confirmed

the diagnosis of metastatic meningioma. Patients with metastatic pulmonary involvement identified by ^{111}In-octreotide scintigraphy in this case series had an overall survival of 6 months, which is less than that reported from previously published series with unknown systemic disease status. CONCLUSIONS: ^{111}In-octreotide scintigraphy is useful for assessing both central nervous system disease and extraneural metastases. The presence of pulmonary metastases appears to negatively predict for survival in patient with recurrent meningioma. The utility of ^{111}In-octreotide scintigraphy should be considered in staging patients with recurrent meningioma considered for further treatment. A prospective study to confirm this finding is warranted.