Long-Term Natural History of Skull Base Meningiomas [Abstracts Of Oral Presentations]

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Introduction: Management of skull base meningiomas is often challenging and controversial. Although there have been numerous recent publications advocating various approaches to their treatment, there is minimal documentation of the natural history of these lesions in untreated patients. **Methods**: This report describes 39 selected patients with meningiomas involving the cavernous sinus (n = 23), anterior clinoid processes (n = 4), or petroclival region (n = 12) in whom the initial management strategy, for various reasons, was observation.**Results**: Mean follow-up was 6.4 years (77 mo). Mean maximum tumor diameter was 3.2 (median, 3.0) cm. Mean patient age was 55 years. Twenty-six patients (67%) presented with cranial neuropathies. Seven patients (18%) were asymptomatic when their tumors were incidentally discovered. During follow-up, 15 (38%) patients experienced new or progressive neurological deficits, generally mild. Actuarial analysis revealed progression-free survival at 2, 3, 5, and 7 years of 89%, 80%, 71%, and 54%. Of initially symptomatic patients, 15 of 32 developed worsening of their neurological deficits, compared with 0 of 7 asymptomatic patients (P = 0.021). Radiographic evidence of tumor growth was found in only 7 (18%) patients. Radiographic tumor "control" rates at 2, 3, 5, and 7 years were 97%, 93%, 78%, and 78%. Eight patients had progression of cranial neuropathies without radiographic evidence of tumor growth. Twelve patients (31%) eventually received treatment for clinical or radiographic progression, consisting of surgery in 3 (8%) and radiation therapy (stereotactic or conventional) in 9(23%). Two patients (5%) died of their tumors. **Discussion and Conclusion**: Skull base meningiomas can be very indolent tumors, often demonstrating little or no radiographic growth or clinical progression over many years. This is particularly true in asymptomatic patients. When making therapeutic decisions, the natural history of these tumors should be taken into account. Our data suggest that in selected patients, observation alone may be a valid option.