Solitary Fibrous Tumor of the Nasal Cavity with Expansion into the Intracranial Fossa; A Case Report and Review of the Current Literature

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Introduction:

Solitary Fibrous Tumors (SFTs) typically arise from the pleura and other thoracic locations, but can also rarely affect the nasal cavity and paranasal sinuses. This report describes the presentation, workup, and management of a patient with a sinonasal SFT with expansion into the intracranial fossa.

Materials and Methods:

Case report

Results:

A 78-year-old male presented with approximately 1 year of worsening nasal obstruction and difficulty sleeping as well as a 4-month history of progressive loss of olfaction and gustation. Fiberoptic examination, CT, and MRI all demonstrated a mass of the right nasal cavity extending into the cranial vault, paranasal sinuses, medial orbital extraconal space, and nasopharynx. Histologic examination of a sample taken from an in-office biopsy revealed a non-malignant tumor with immunohistochemical staining that was positive for CD99 and STAT6. The sample was negative for CD34 as well as numerous other tumor markers. The mass was completely resected without recurrence and intraoperative frozen tissue specimen confirmed the diagnosis.

Conclusions:

CD99 and STAT6 are positive in 87% and 90% of SFTs described in the literature, making them both instrumental in diagnosis. However, in contrast to the results found in this patient, CD34 has been reported positive in 95-100% of SFTs. Unlike SFTs in other anatomic locations, non-malignant SFTs of the head have a relatively high recurrence rate secondary to technically difficult resection.