A Systematic Review of Sinonasal Oncocytomas and Oncocytic Carcinomas: Diagnosis, Management, and Technical Considerations

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OBJECTIVES: Oncocytomas and oncocytic carcinomas are rare tumors of the sinonasal cavity with propensity for local invasion. This report and systematic review details a case of a nasal oncocytoma involving the lateral wall and provides an update of the current literature.

STUDY DESIGN: Case report and systematic literature review.

METHODS: A systematic literature review of manuscripts with sinonasal oncocytoma/oncocytic carcinoma as the primary diagnosis was performed using PubMed and Ovid databases. Data obtained include patient demographics, presentation, radiographic and histologic findings, management, and recurrence rates.

RESULTS: 20 cases were identified. The most common symptoms were epistaxis and nasal obstruction (n=11). Involvement of the nasal cavity was most common (n=17), followed by the paranasal sinuses (n=13) and naso-orbital apparatus (n=4). Recurrence occurred in 50% of cases. Recurrence was associated with invasion or infiltration found on histology in the presence of both invasion/infiltration and mitotic figures/plasmaphilic (p < 0.05) with no significant relationship between recurrence and age at diagnosis (p = 0.42), gender (p = 0.65), and location of tumor (p = 0.14). The authors present a 73-year-old woman with a 5-month history of worsening epistaxis and biopsy proven oncocytoma. Complete surgical resection of the tumor using combined endonasal and anterior orbital approach is described.

CONCLUSIONS: Oncocytomas and oncocytic carcinomas are rare tumors of the sinonasal cavity with a high rate of local recurrence and orbital involvement. Surgical resection is the treatment of choice and complete resection can be achieved with an endonasal endoscopic approach.

INTRODUCTION

- Oncocytomas and oncocytic carcinomas are epithelial cell tumors defined by the presence of abundant eosinophilic granular cytoplasm as a consequence of rich mitochondrial content.
- Those that arise from minor salivary gland tissue are more locally invasive with greater malignant potential.
- There are less than 40 documented cases of oncocytomas and oncocytic carcinomas of sinonasal origin.

CASE REPORT

- The patient is a 73-year-old woman who presented with a 5-month history of gradually worsening unilateral epistaxis.

METHODS

- A 73-year-old woman was diagnosed with nasal obstruction.
- She presented with a 5-month history of gradually worsening unilateral epistaxis.
- A sinonasal mass was palpable on examination.
- Nasal endoscopy revealed a polypoid mass on the right inferior turbinate.
- Computed tomography (CT) scan showed a well-circumscribed, homogenous, hypodense mass with enhancement on contrast administration.
- Nasal endoscopy and transnasal biopsy were performed.
- Histopathological examination revealed an oncocytoma.
- Wide local excision with transnasal endoscopic approach was performed.
- There were no complications postoperatively.
- The patient remained symptom-free at 12-month follow-up.


