

Introduction

The role of endoscopy in the resection of malignant lesions remains controversial. Such malignancies are traditionally resected through transfacial approaches and any skull base involvement is addressed through transcranial or combined approaches. We present a series of patients with nasal cavity malignancies involving the skull base treated with purely endoscopic or endoscopic-assisted resections and offer an algorithm to assist in the appropriate selection of these patients.

Methods

We retrospectively reviewed the charts of patients with malignant nasal cavity lesions involving the skull base resected utilizing nasal endoscopy.

Results

A total of 9 patients were included in the series. M:F ratio was 3.5:1. Average age at time of surgery was 52 years. Pathology included Esthesioneuroblastoma, sarcoma, SNUC, melanoma, adenocarcinoma and myofibroblastic tumor. 2 patients (22%) had intra-orbital extension and 1 patient (11%) had pterygopalatine or infratemporal fossa extension. All patients had skull base involvement, 5 (56%) of which had intradural extension. 6 patients (67%) underwent a purely endoscopic resection and 3 patients (36%) had a combined approach. 6 (67%) patients had a GTR and 3 (33%) patients had subtotal resection. Average EBL was 780 ml. 67% of patients retained olfaction post-op. Average follow-up was 25 months. 6 (67%) underwent adjuvant treatment. Complications included 2 post-op CSF leaks.

Conclusions

Nasal cavity malignancies involving the skull base can often be difficult to resect. Open transfacial approaches are effective, but can be associated with significant morbidity. We believe that endoscopic and endoscopic-assisted techniques offer a minimally invasive alternative avoiding cosmetic and functional morbidities in appropriately selected patients.

Learning Objectives

Understand the capabilities of endoscopic techniques in the management of nasal cavity malignancies involving the skull base.