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Case Series

Rare malignant cases of unilateral bleeding nasal mass: case series

Kondreddy Siri Krishna, Deeganta Mohanty, Boddikuri Harini*

Department of Otorhinolaryngoly and Head and Neck Surgery, ASRAM Medical College, Eluru, Andhra Pradesh, India

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***Correspondence:**
Dr. Boddikuri Harini,
E-mail: boddikuri555@gmail.com

ABSTRACT

A complete assessment of nasal masses along with early diagnosis and management of the disease is very important to prevent complications. Epistaxis and nasal obstruction are the signs of suspicion of malignant tumors. Patient‘s presentation depends upon the site and extent of the mass. This article comprises of study done on Three patients who presented to the department of otorhinolaryngology (ENT) with nasal mass with symptoms of nasal obstruction and nasal bleeding. All patients were subjected to clinical examination, diagnostic nasal endoscopy, radiological evaluation, surgical intervention and histopathological assessment. Thorough assessment helps the surgeon to come to a diagnosis which includes even rare cases and helps to treat the disease and to prevent further progression of the disease and it’s complications.

Keywords: Nasal masses, Nasal bleeding, Nasal obstruction, Malignancy

INTRODUCTION

Unilateral sinonasal mass is a frequently seen entity. Malignant tumors of the sino-nasal tract account for 0.2 to 0.8% of all human malignancies. Nasal congestion, unilateral nasal discharge, and bleeding, facial swelling are most frequent complaints.[1-3] Symptoms depend upon the size of the mass and it’s extent and local type of the mass. Comprehensive evaluation of the patient requires investigation of patient’s age, symptoms, nasal endoscopic examination, and computed tomographic findings. A provisional diagnosis was made after clinical assessment and radiological investigation but final diagnosis was made after histopathological examination.[4] Early diagnosis plays an important role in the establishment of faster planning of the treatment and early recovery which eventually provides good prognosis. Here we reported three cases of the patients presented to our clinic with single-sided sinonasal symptoms, and finally diagnosed as rare malignant sinonasal mass lesions.

CASE SERIES

Case 1

A 60-year-old female came with complaints of right sided nasal obstruction since 20 days. Patient also gave a history of one episode of epistaxis lasting for about 3 minutes. Diagnostic nasal endoscopy showed a single, large, soft lobulated friable mass with blood-tinged discharge seen in the right nasal cavity between septum and inferior turbinate. Mass was adherent to septum causing displacement of the nasal septum to opposite side. CT-PNS showed soft tissue density in the right nasal cavity involving frontal sinus, ethmoidal air cells and sphenoid sinus on right side with focal destruction of nasal septum (Figure 1). Patient underwent complete excision of mass through ESS with cob-later and tissue was sent for histopathological examination. HPE revealed the diagnosis of glomangiopericytoma (GPC) and on immunohistochemistry markers positive for beta catenin, CD99, factor XIII a.

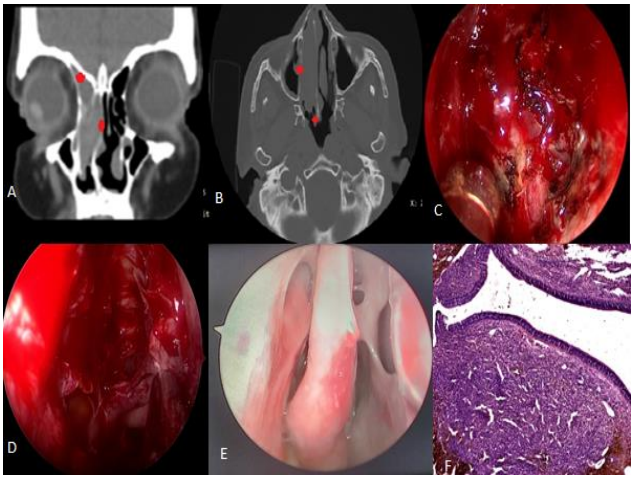

Figure 1 (A-F): Image showed coronal CT PNS, axial CT PNS and intra operative image, 2 months postoperative DNE image and HPE.

Case 2

A 65-year-old male patient, came to department of otorhinolaryngology with chief complaint of recurrent bleeding from right nostril, difficulty in breathing through right nostril for 3 months. No h/o any co-morbidities. Diagnostic nasal endoscopy revealed single, large firm, lobulated friable mass with mucoid discharge associated with blood is seen in right nasal cavity between septum and inferior turbinate. Computerized tomography scan of paranasal sinuses (CT-PNS) revealed right spheno-ethmoid-frontal sinonasal polyposis (Figure 2).

The patient underwent complete excision of mass through FESS with coblater and tissue was sent for histopathological examination (HPE). HPE revealed the diagnosis of low-grade papillary adenocarcinoma of the nasal cavity.

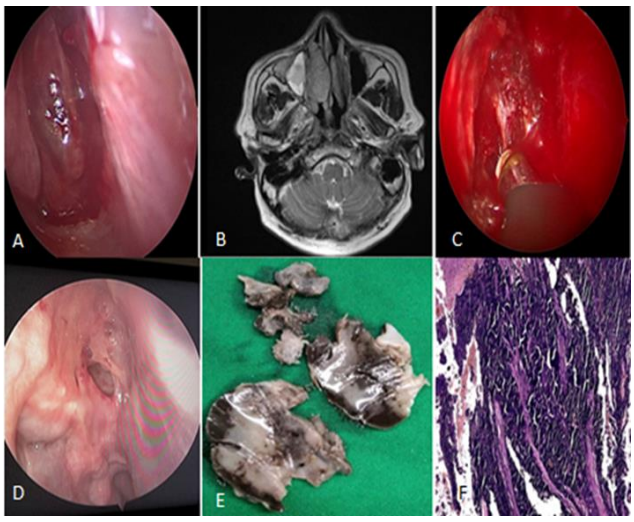

Figure 2 (A-F): Image showed DNE image, axial CT PNS, intra operative image, 2 months postoperative DNE image, gross section and HPE

Case 3

The 42-year-old male patient presented to ENT OPD with history of nasal obstruction recurrent epistaxis from left nostril since 2 months. A total of 3 episodes of epistaxis were seen and each episode was lasting for about 2 to 5 minutes. Diagnostic nasal endoscopy showed bleeding mass seen in between left inferior turbinate and nasal septum. CT-PNS suggestive of homogenous soft tissue mass involving left maxillary, frontal and sphenoid sinuses with bony erosions (Figure 3).

The patient underwent complete excision of mass under general anesthesia by functional endoscopic sinus surgery. Tissue was sent for HPE. HPE revealed the diagnosis of non intestinal type of high grade sinonasal adenocarcinoma.

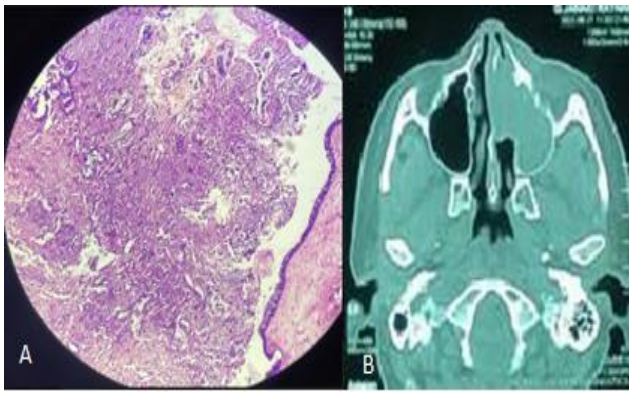

Figure 3 (A and B): HPE and axial CT PNS.

DISCUSSION

Glomangiopericytoma (GPC)/ hemangiopericytoma (HPC) is a rare sinonasal tumor arising from Zimmerman's pericytes surrounding the capillaries and accounts for <0.5-1% of all sinonasal tumors.[5,6] GPC was regarded by the world health organization (WHO) as a borderline and low malignant potential soft tissue tumor of the nose and paranasal sinuses with an excellent overall survival rate. Most prevalent in the 60-70 age range, with a slight female predominance. The etiology of GPC remains unclear.

Pregnancy, hypertension, past trauma, and chronic cortic osteroid usage thought to be probable reasons of high vas cularization, which are considered as possible risk factors. Recurrent epistaxis, and nasal obstruction are the main clinical features. Nasal endoscopy usually shows a protruding reddish mass with a smooth surface in the involved nasal cavity. CT and MRI imaging are used to locate and evaluate the nature of the mass and its pressure effect on the surrounding structures. GPC's CT scan findings may be ambiguous given the resemblance to nasal polyps. On T2W MRI imaging, it shows hyper intensity and intermediate signal. Histopathological tissue sampling is gold standard for definitive diagnosis.

Histology demonstrating perivascular epithelioid cells with abundant perivascular hyalinization. Tumor cells are immunohistologically positive for cytoplasmic SMA and vimentin, and nuclear β-catenin in 80-100%. Primary treatment for GPC is complete resection with endoscopic surgery and regular postoperative monitoring. Overall prognosis is good with low chance of recurrence after complete resection of tumor.

Glandular neoplasms account for 4 to 8% of all primary nasal cavity malignancies.[7] Adenocarcinoma group of cancers constitute about 10% of malignant lesions (0.3%-0.8%) involving the sino-nasal tract. Low-grade adenocarcinomas of the nasal cavity represent an uncommon-neoplasms that occurred in patients who are middle aged or older with symptoms like Nasal obstruction and recurrent bleeding. A specific risk factor for primary nasal cavity adenocarcinoma is exposure to wood dust. Clinically the appearance is similar to nasal polyp. Biopsy of the mass can be both diagnostic and therapeutic.

The primary treatment of sinonasal adenocarcinoma is complete surgical excision. Adjunctive radiation has been suggested for recurrent low- grade lesions and when complete surgical excision is not achieved. High-grade adenocarcinomas exhibit poorly differentiated growth patterns on histo-pathological examination. These tumors have a poor prognosis. In cases of extensive disease or higher-grade lesions, surgery along with radiotherapy may be utilized. Local recurrences have been reported in some cases, and death of disease has occurred due to local invasion.[8]

CONCLUSION

For unilateral nasal bleeding and nasal mass, establishment of diagnosis, and treatment planning are very difficult for surgeons. Nasal mass and nasal bleeding symptoms frequently are not specific to any one disorder, these symptoms can be caused by a variety of tumors that can affect the nose, nasal cavity, and paranasal sinuses.

Early diagnosis and early intervention are utmost important to prevent further spread of the tumor and complications associated with it and for good prognosis.

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