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# Nasopharyngeal Obstruction as a Presentation of Renal Cell Carcinoma (RCC)

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## Abstract

Nasopharyngeal metastasis is very uncommon site for metastatic RCC. Most of the cases present after radical nephrectomy. The commonest presentation were nasal obstruction, swelling and pain.

**Keywords:** Nasopharyngeal metastasis; Swelling; Pain

## Introduction

RCC represent approxiematly 3% of all adult malignancies. RCC patients present with metastasis in approximately 20-30% of cases. The tumor usually metastasizes to lungs, Regional LNs, bone, liver and brain. Metastasis to the nasopharynx is extremely rare [1] .We report this rare case of metastatic RCC to the nasopharynx.

## Case Report

A 49 Years old male patient DM, HTN, IHD with PS=0. Presented with dysphagia and symptoms of nasal obstruction. MRI of the paranasal sinuses was done and showed right Spheno-ethmoidal likely malignant soft tissue mass lesion with bilateral cervical and retro-pharengeal and para-vertebral enhancing lymph nodes. Nasal endoscopy was done and revealed the presence of nasopharyngeal mass on the right side. The lesion was biopsied and reported as metastatic RCC clear cell type. Enhanced CT scan of the chest and abdomen revealed an evidence of asymptomatic large heterogenously enhanced mass lesion occupying the upper part of the left renal cortex with large exophytic component it measure 9.7 x 7.9 x 11.4 cm. The patient underwent cytoreductive nephrectomy, the histopatholgical analysis reported the specimen as RCC of clear cell type, fuhrman grade 2. Tumor was limited to the kidney. Lymphovascular invasion was focally present. Decision from the beginning was taken to do cytoreductive nephrectomy followed by targeted therapy (TKIs). Unfortunately patient developed surgical site infection and his general condition deteriorated which prolonged hospital stay. Patient needed supportive measures prevented initiation of targeted therapy. Patient passed away after 3 months.

## Discussion

RCC accounts for 3% of all adult malignant neoplasm. Clear cell RCC account for 70-80% of all RCCs. Incidentally detected RCC account for more than 60% of the total cases. The Classic triade of flank pain, palpable abdominal mass and gross hematuria is now rarely found. Nasopharyngeal metastasis is very uncommon site for metastatic RCC. Due to the unpredictable behavior of clear cell RCC, reports differ regarding the metastatic time and spreading patterns of clear cell RCC. Approximately 25% of patients have distant metastases upon the first diagnosis, while 20% to 50% of patients experience metastasis years after curing with radical nephrectomy. Approximately 50 cases of nasal metastasis of RCC have been reported in the literature. In 15 cases presented with nasopharyngeal mass there was no history of renal mass, while the rest of the patients had previous history of radical nephrectomy. The most commonly sinuses involved by metastatic tumor are maxillary sinuses followed by ethmoid, frontal and sphenoid. Zhang et al. reviewed 28 cases of metastatic RCC to the nasopharynx from 1982 to 2017, the most common metastatic sites are the nasal cavity (8 cases), maxillary sinus and ethmoid sinus (8 cases for each). Other sites of metastasis were frontal sinus, sphenoid sinus, orbital and nasopharynx .Bastier et al. reviewed 53 cases including those with orbit metastasis and found the metastasis were located in the nasal cavity in 23

patients (43.4%), the ethmoid sinus in 14 (26.4%), the sphenoid sinus in 10 cases (18.9%).

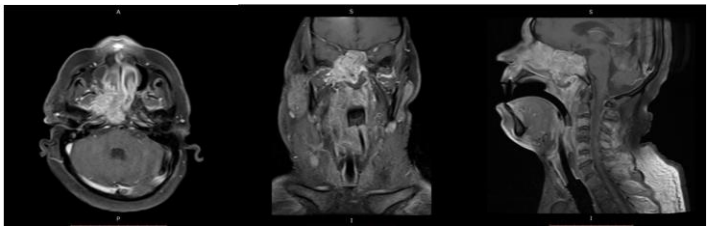

***Figure 1:*** *MRI Study of the paranasal sinus showed right Sphene-ethmoidal likely malignant soft tissue mass lesion – (1.A) Axial view – (1.B) coronal view – (1.C) sagittal view.*

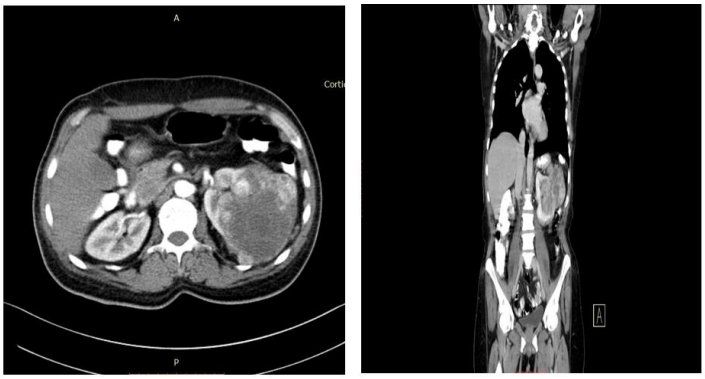

***Figure 2:*** *CT scan of the abdomen revealed an evidence of asymptomatic large heterogeneously enhanced mass lesion occupying the upper part of the left renal cortex with exophytic component – (1.A) axial view – (1.B) coronal view.*

The metastatic mechanism remains unclear but the paranasal sinuses appears to be involved by the tumor essentially by hematogenous route either via renal vein, inferior vena cava, heart, lungs and maxillary artery or via Batson's paravertebral venous plexus up to the lungs. The commonest presentation were nasal obstruction, swelling and pain. Epistaxis is the most alarming symptom because of the highly vascular nature of these metastatic deposits [2]. Other literatures found the most common presenting complaint is nasal bleeding. The symptoms were identical to those caused by primary nasopharyngeal tumors .Prognosis is generally poor when metastasis occurs with a median survival less than a year. In case of respectable primary tumor and an isolated metastasis, nephrectomy and resection of metastasis should be performed [3-4]. Other treatment modalities include radiotherapy and immunochemotherapy are suggested but surgery remains the mainstay for treatment because most metastatic tumors in the nasal or paranasal sinuses are single [5].

## Conclusion

Nasopharyngeal metastasis is very uncommon site for metastatic RCC. Most of the cases present after radical nephrectomy. The commonest presentation were nasal obstruction, swelling and pain. In case of respectable primary tumor and an isolated metastasis, nephrectomy and resection of metastasis should be performed.

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