

CASE REPORT

RHINOLITH – LIKE A NASAL TUMOR: A CASE REPORT

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ABSTRACT

Rhinolithiasis is not a common disease. It may present with multiple nasal symptoms. We are presenting a case of 68 year female with left nasal mass. Computerized Tomography of nose and paranasal sinus showed hyperdense mass with central hypodensity occupying left nasal cavity. It was removed through lateral rhinotomy approach.

Keywords: Lateral rhinotomy, nasal mass, rhinolith

INTRODUCTION

Rhinolith is a Greek term rhino meaning nose, and lithos meaning stone. Rhinolithiasis is the formation of calcareous concretion consisting of calcium and magnesium salts in side the nasal cavity. These are of two types: exogenous and endogenous. Rhinolith due to foreign body inside nasal cavity is exogenous. Inspissated mucus, blood clot, inflammatory exudates, ectopic tooth, bone fragments are the source for endogenous rhinolith. They are chiefly made of carbonate, phosphate, oxalate, chloride of calcium, magnesium and sometimes sodium. The nidus induces chronic inflammatory changes around which salt formates. It increases progressively. Symptoms are unilateral nasal obstruction, epistaxis, foul smelling discharge and other nonspecific complains. It is diagnosed clinically but radiological evaluation may need to rule out other etiology and management purpose. Sometimes it is difficult to differentiate from nasal tumor pre operatively. Complete removal is the treatment.

CASE REPORT

A 68 year female, resident of chitwan, presented in ENT-Head and Neck clinic with complain of left sided nasal obstruction for 20 years. It was insidious onset, progressive in nature. She denied history of persistent nasal discharge, epistaxis, foreign body, excessive tearing, trauma and swelling of cheek. Nasal examination revealed a hard mass, bleeds on touch, non friable, occupying left nasal cavity, pushing nasal septum towards right side. Nasal endoscopy was done but exact origin could not be identified. Neck examination was normal. Computerized Tomography (CT) of nose and paranasal sinus revealed a hyperdense mass occupying the left nasal cavity involving inferior and middle meatus without identifiable turbinate and without bony eroison in left side with differential diagnosis of osteoma. She was planned for surgery under general anesthesia. Nasal mass

removed through lateral rhinotomy approach. Antibiotics were prescribed in post operative course.

DISCUSSION

Rhinolith is the mineralized mass in side the nasal cavity, formed by deposition of salts of calcium and magnesium around the nidus. Exogenous, like foreign body of organic or inorganic origin or endogenous like mucus, exudates, blood clot form the nidus for rhinolith. Most of the manner is antegrade but retrograde like in vomiting, coughing, sneezing for implanting nidus is postulated. Process of formation is very slow¹ requiring years for manifestation. Mineralogical analyses of most rhinolith is dahllite [Ca₅(PO₄,CO₃)₃OH]. They are hard but sometimes, brittle and chalky.¹

Rhinolithiasis is not a common entity. All age group is prone to develop including paediatrics age.² All gender is affected, tendency more towards female. Most common symptom is foul smelling nasal discharge and nasal obstruction. Other symptoms are epistaxis, sinusitis, septal perforation, palatal perforation, chronic nasal vestibulitis, swelling in nose or face, squamous cell carcinoma. They may extend to maxillary sinus and cranium.² No local erosion findings were identified in our patient.

Sometimes it may be an incidental finding. High index of suspision is required to diagnose clinically as posteriorly located mass may be missed during rhinoscopy. Nasal endoscopy is preferred for more precision during clinical examination. Superimposed adjacent structures may be difficult to distinguish from rhinolith on plain films. CT scan is helpful for both diagnosis and further management helping to decide the approach for removal.³ In the differential diagnosis of rhinolithiasis, benign tumors such as hemangioma,

osteoma, ossifying fibroma, and enchondroma or malignant ones such as chondrosarcoma and osteosarcoma should be considered.^{4,5} Large, irregular surface stone settled for many years can be removed completely through lateral rhinotomy approach. Mink et al.⁶ have used ultrasound lithotripsy to disintegrate the rhinolith.

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Figure 1: CT nose and paranasal sinus showing rhinolith

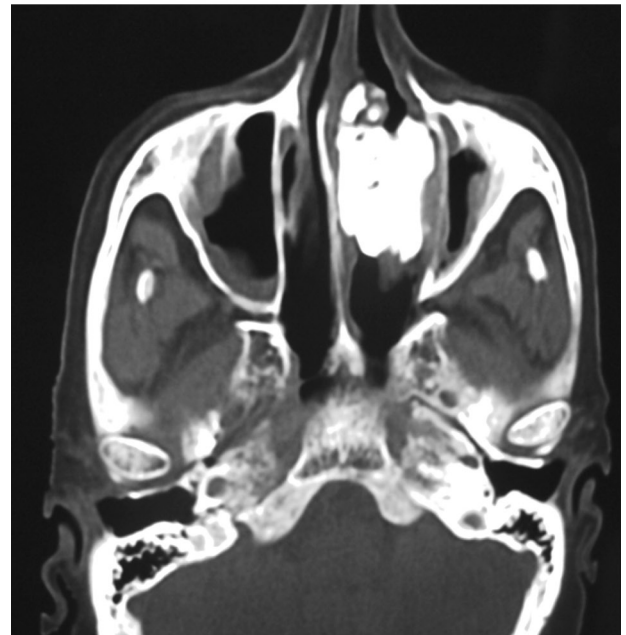


Figure 2: CT nose and paranasal sinus showing rhinolith



Figure 3: Specimen of rhinolith after surgery