

CASE REPORT

RHINO SCLEROMA OF NASAL AND PARANASAL SINUSES: A RARE CASE REPORT

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ABSTRACT: Rhinoscleroma is a chronic destructive bacterial infection of the nose and upper respiratory airways, caused by *Klebsiella rhinoscleromatis*. We report a case of 22 years old male, who presented with symptoms of nasal obstruction, both sides due to bilateral nasal masses of 1 year duration. Patient underwent all the necessary investigation, including biopsy. Biopsy revealed the histological diagnosis of rhinoscleroma. Medical management was given to the patient, which is adequate to effectively cure the patient, unless recurrence occurs.

KEYWORDS: Scleroma; Biopsy; Treatment.

INTRODUCTION: Rhinoscleroma is a chronic bacterial infection, caused by *Klebsiella rhinoscleromatis*, which is a gram negative, non-motile, encapsulated bacteria.¹ Prolonged exposure is required in order to establish infection. It is seen in the developing world and is likely a secondary complication as a result of poor personal hygiene, and overcrowded living condition.²

Majority of cases are found in Africa, Central America, and the Middle East. Other cases are notified due to their migration from endemic areas.^{3,4} Usually, the rhinoscleroma can involve any structure of the upper respiratory tract, but here we present a case of rhinoscleroma involving the paranasal sinuses which is supposed to be a rare one

It can also be found in the nasopharynx (18-43%); larynx (15-40%); trachea (12%) and bronchi (2-7%).⁵ but very rarely involve paranasal sinuses.

Hence, we present a case with nasal and sinus involvement.

CASE REPORT: A 22 years old tribal male from Visakhapatnam, presented with a 1 year nasal mass (bilateral), and sinusitis; along with a symptom of epistaxis since 6 months. There was no complaints regarding the presence of stridor. The patient was unable to breathe out of his nose for the past one year duration.⁶

- H/o. Similar complaints seen in the past.
- Subsiding with medication and getting recurrences when stopped.

FAMILY HISTORY:

- His Father, Grandfather was expired because of similar complaints.⁶

SPECIFIC EXAMINATION: External appearance of nose is normal.

Anterior Rhinoscopy: Pinkish irregular ulcerative mass seen in both the nostrils, with complete obstruction of nasal cavity towards right side and partially obstruction with discharge towards left side. Hypertrophy of inferior turbinates seen.

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DNS towards right side. Sinus tenderness present.
He was asked to undergo all the necessary investigation
Haemogram was done showing all normal values.

X-RAY PNS: DNS towards right side with pan sinusitis.

CT PNS: Homogenous non enhancing soft tissue density noted in left ethmoidal, maxillary sinuses with blockage of ostiomeatal unit.

S/o Maxillary and ethmoidal sinusitis.

Patient is taken up for surgery in view of its recurrence inspite of conservative treatment. Intra operatively, the lesion was seen in left nasal cavity extending to maxillary sinus and ethmoidal sinus on the left side. A small lesion was also seen in the right nasal cavity as well. The lesion was excised in toto endoscopically and sent for histopathological examination.

H & E stained sections showed fragment of granulation issue with inflammatory cells, comprising of several foamy to vacuolated histiocytes with Freisch bacilli (Mikulicz cells) and plasma cell (Russel bodies).

No evidence of malignancy in the section studied.

DISCUSSION: Rhinoscleroma generally progress in three stages:^{7,8} The initial stage is the catarrhal a exudative phase. This is followed by the proliferative on granulomatous phase, which finally evolves into the cicatricial phase. During the catarrhal stage, patients may have persistent rhinitis and mucopurulent discharge. In the second stage, inflamed mucosa coalesces to form granulomas. These granulomes may infiltrate other areas of the airway and then scar, giving side to the third or cicatricial stage.

In many cases, the presence of all three stages can be found at the time of diagnosis. A local awake tracheostomy may be performed to provide a secured airway.⁹

Medical Management:

1. Tetracyclin 500 mg/BP (4-6 weeks)
2. Streptomycin 1gm/OD (4-6 weeks)
3. Aereflainvine solution - 1% not responding.
- 2% well responding.
- 5% epistaxs.
4. Rifampicin – 450mg/OD.
5. Sclerotive lesions responds well to ciprofloxiian.¹⁰
6. 3rd generation – Cephalosporins.

Differential Diagnosis to be considered:

Granulomatous diseases:

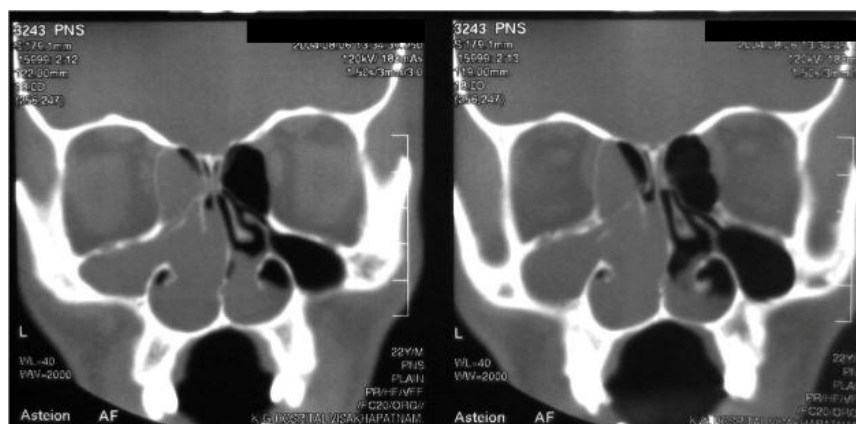
1. Leprosy.
2. Syphilis.
3. Sarcoidosis
4. Wegener's granulomatosis.
5. Actinomycosis.

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CONCLUSION: To conclude, Rhinoscleroma is a rare granulomatous disease ¹¹, the diagnosis of which depends only on biopsy. This condition can be effectively treated by Medical Management. surgery is indicated when there is refractory to conservative treatment and airway is compromised. Laser therapy and radiotherapy may be considered in case of recurrence of the disease. The rhinoscleroma rarely involves para nasal sinuses.

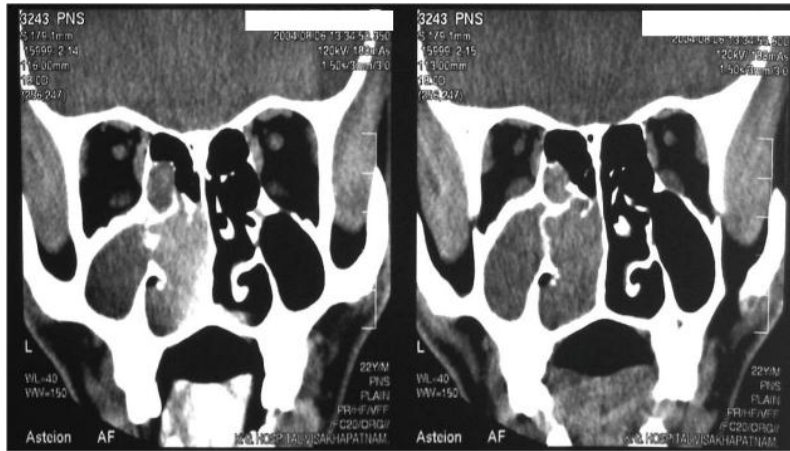
REFERENCES:

1. Hart CA, Rao SK. Rhinoscleroma. J Med Microbiol 2000; 49: 395-6.
2. Casanova JL. Rhinoscleroma: a French national retrospective study of epidemiological and clinical features. Clin Infect Dis 2008; 47: 1396-402.
3. Maguiña C, Cortez-Escalante J, Osoro-Plenge F et al. Rhinoscleroma: eight Peruvian cases. Rev Inst Med Trop Sao Paulo 2006; 48: 295-9.
4. Andraca R, Edson RS, Kern EB. Rhinoscleroma: a growing concern in the United States? Mayo Clinic experience. Mayo Clin Proc 1993; 68: 1151-7.
5. Arunabh Talwar¹, Nick Patel², Lisa Chen¹, Rakesh Shah³ and Donald Margouleff³, Rhinoscleroma of the Tracheobronchial Tree: Bronchoscopic, PET, and CT Correlation, The Indian Journal of Chest Diseases & Allied Sciences, 2008; Vol. 50, PP. 225-228.
6. Shaw HJ, Martin H. Rhinoscleroma – A clinical perspective. J Laryngol Otol 1961; 75: 1011–39.
7. Canalis RF, Zombom L. An interpretation of the structural changes responsible for the chronicity of rhinoscleroma. Laryngoscope 2001; 111: 1020-6.
8. Kim NR, Han J, Kwon TY. Nasal rhinoscleroma in a nonendemic area: a case report. J Korean Med Sci 2003; 18: 455-8.
9. Prince JS, Duhamel DR, Levin DL, Harrell JH, Friedman PJ. Nonneoplastic lesions of the tracheobronchial wall: radiologic findings with bronchoscopic correlation. Radiographics 2002; 22: S215-30.
10. Lydia Badia, F.R.C.S., Valerie J. Lund, A case of rhinoscleroma treated with ciprofloxacin, The Journal of Laryngology & Otology March 2001, Vol. 115, pp. 220–222.

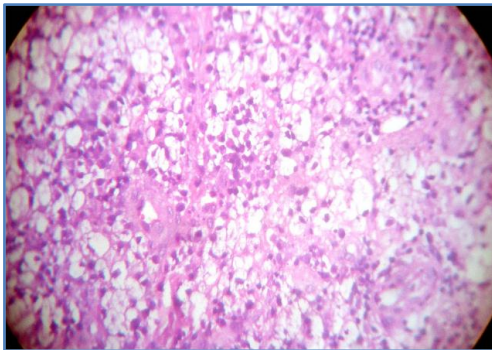


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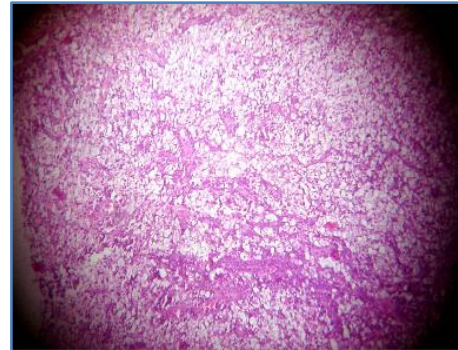
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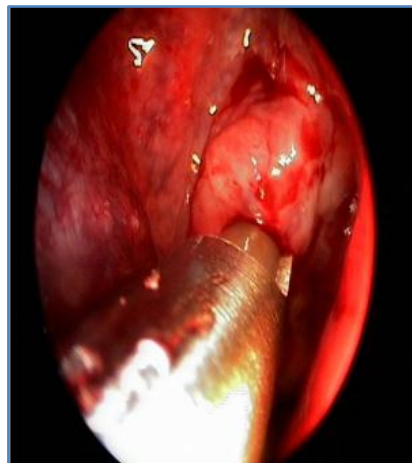
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hpe1



hpe2



Surgical



x_ray_pns

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