Available online at www.iponlinejournal.com

Journal homepage: www.innovativepublication.com/journal/ijoas

Case Report

Rhinoscleroma a case report

Jagram Verma[1*], Hima Thomas[2]

[1]Associate Professor, [2]Post Graduate Resident, Dept. of Otorhinolaryngology, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India

Abstract

Introduction: Rhinoscleroma is a rare, chronic, granulomatous infection involving the upper respiratory tract mostly caused by gram-negative bacilli like *Klebsiella Rhinoscleromatis*. Most common site affected is the nasopharynx. The disease has classic histopathologic features which consists of Mikulicz cells and Russell bodies.

Case Report: This paper represents our experience in the management of a case of rhinoscleroma from a non-endemic area. Patient presented with occasional episodes of bilateral epistaxis and nasal obstruction. Patient has achieved a good clinical outcome after our medical and surgical intervention.

Keywords: Mikulicz cells, Rhinoscleroma, Russel bodies.

Introduction

Rhinoscleroma or respiratory scleroma is a chronic progressive granulomatous condition affecting the upper airways. The infection occurs due to the gram negative organism, *Klebsiella Rhinoscleromatis* which was first described by Von Frisch in 1882.[1] The infection tends to occur predominantly among the rural population where socio economic conditions are backward. Factors which facilitate its spread are overcrowding, poor hygiene, poor nutrition etc...

Here we report a case of rhinoscleroma who presented with six months history of bleeding from the bilateral nasal cavity and nasal obstruction without any significant nasal deformity who was diagnosed as rhinoscleroma histopathologically and was treated and followed up and cured of the illness.

Case Report

A 32yr old male residing in a rural area working as a laborer in market [grain mandi, presented to our institution with history of occasional nasal bleeding from both the nostrils and bilateral nasal obstruction predominantly on the left side with excessive dryness and crusting in both the nostrils of six months duration. Patient was not having any history of foul smelling nasal discharge, anosmia, nasal deformity, dysphonia or other ENT related symptoms. Patient was not having any significant medical illness or surgeries or chronic medication intake in the past. There was no significant illness in the family members.

On examination patients general condition was fair. External nose and framework appeared normal. On anterior rhinoscopy examination of nasal cavity there was multiple reddish fleshy mass lesions in bilateral nasal cavity which were crusted extending up to the level of inferior turbinate in the left nasal cavity with attachments on both septum as well as the lateral wall, soft to firm in consistency and doesn't bleed on touching. Bilaterally choana was clear on posterior rhinoscopy examination.

Patient had underwent all routine blood investigations which were normal, followed by a diagnostic endoscopy of the nose which confirmed the clinical examination findings. Nasal swab which was sent for culture sensitivity showed the presence of gram negative organism. The patient was subjected to a contrast enhanced CT PNS which revealed multiple hypodense non enhancing soft tissue polypoidal lesions of varying sizes in bilateral nasal cavity arising from the nasal septum and the lateral wall of nose. There was no evidence of intralesional evidence of calcification or bony destruction of surrounding area.

The patient was planned for surgical excision of the mass and after preoperative evaluation and anesthetic checkup he underwent surgery with bilateral nasal mass excision under endoscopic guidance with cauterization of the base of the removed lesions. The sample was sent for histopathology examination which revealed the hyperplastic mucosa with pseudoepitheliomatous squamous hyperplasia, granulomatous inflammation, foamy macrophages containing the bacteria [Mikulicz cells], and the plasma cells with Russel bodies suggesting the diagnosis of Rhinoscleroma.[2]

The patient had significant relief of symptoms following the surgery and he was discharged on post-operative day 5 stating oral antibiotic ciprofloxacin 500mg twice daily for 14 days. Patient was followed up for 3 months with good clinical outcome and no evidence of any recurrence of symptoms.

Discussion

Scleroma is a specific granulomatous infection that affects the nose and nasopharynx and, less frequently, other structures of the respiratory tract. The disease progresses in three stages:

*Corresponding Author: Jagram Verma, Dept. of Otorhinolaryngology, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India

Email: himathomasv@gmail.com

1. The catarrhal [coryzal /rhinitic] stage: where patients have non-specific rhinitis symptoms that progress to fetid rhinorrhea, crusting and nasal obstruction. This stage can last for weeks or months.[3,4]
2. The hypertrophic [granulomatous/infiltrative/nodular] stage: this stage includes granulation tissue formation, excessive crusting, deformity due to widening of the nasal pyramid, and nasal septum cartilage destruction. Epistaxis, anosmia, and anesthesia of the soft palate, are the other symptoms, which may accompany.[3,4]
3. The sclerotic [cicatrical] stage: this stage is characterized by extensive scarring and laryngeal, and nasal vestibular stenosis in severe cases and sometimes severe dyspnea.[3,4]

Our patient presented with the disease in the hypertrophic stage of rhinoscleroma, which was managed combined approach of surgical removal of mass bilaterally along with follow up antibiotic therapy with fluoroquinolone ciprofloxacin 500mg twice daily for 14 days was given.

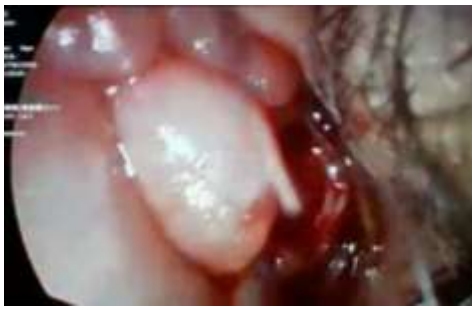

Fig. 1: multiple fleshy lesions in the left nasal cavity on nasal endoscopy

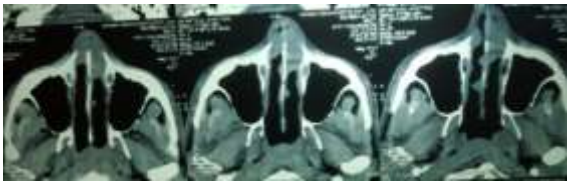

Fig. 2: Hypodense non enhancing lesions on CT PNS

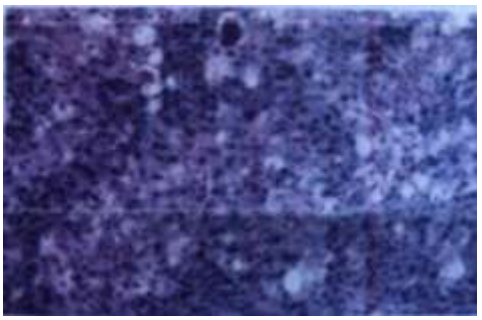

Fig. 3: HPE showing Mikulicz cells & Russel bodies

Conclusion

In our case report the patient presented in the hypertrophic or granulomatous stage of rhinoscleroma without out any deformity underwent necessary investigations was managed promptly with surgical intervention as well as oral fluoroquinolone therapy which provided good outcome of the management. Hence early intervention and management with adequate follow up of these patients will definitely add an asset to our career.

Source of Funding

None.

Conflict of Interest

None.

References

1. Charles M Stiernberg M.D Rhinoscleroma A Diagnostic challenge, *Laryngoscope* 93(7)866-70.
2. NeelamSood,Sanjeev Sood cytohistological features of Rhinoscleroma, *Indian J Pathol Microbiol* 2019;13.
3. Becker TS, Shum TK, Waller TS, et al. Radiological aspects of rhinoscleroma. Radiology 1981;141:433-8.
4. Simons ME, Granato L, Rhinoscleroma: Casereport rev. *Bras Otorhinolaryngol* 2006;72.

How to cite this article: Verma J, Thomas H. Rhinoscleroma a case report. *J Otorhinolaryngol Allied Sci* 2019;2(3):66-7.