



Case Report

Rebellious headache revealing an extensive rhinoscleroma: A case report and review of the literature



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ARTICLE INFO

Keywords:

Headache
Rhinoscleroma
Klebsiella rhinoscleromatis
Clivus
ciprofloxacin.case report

ABSTRACT

Introduction: and importance: this case report aimed at an unusual case of extensive rhinoscleroma with a literature review, We report this case to bring attention to the patients with immunodeficiency problem regardless of presenting symptoms. Case presentation: a 70 -year-old patient with diabetes and hypertension, consulted for chronic median and posterior headaches have not improved with symptomatic treatment. She reported cacostmia without rhinorrhea and right otalgia. The examination of the nasal cavity showed a bleeding lesion on the lateral wall of the nasopharynx. CT-scan of the facial showed tissue lesion on the posterior and lateral walls of the nasopharynx, with infiltration of the parapharyngeal space and bone lysis right edge of the clivus. The biopsy confirmed the diagnosis of rhinoscleroma. The patient started the ciprofloxacin for 3 months, and the evolution has noticed with the disappearance of the lesion during the first month of treatment. The patient started the ciprofloxacin for 3 months, and the evolution was noticed with the disappearance of the lesion during the first month of treatment. Clinical discussion: rhinoscleroma is a chronic and progressive granulomatous disease of the nasal cavities. The diagnosis is confirmed by the search for bacteria and an anatomopathological assessment of Mikulicz cells. The medical treatment of choice has a high concentration in macrophages such as rifampicin and fluoroquinolone. Conclusion: rhinoscleroma is a granulomatous disease caused by klebsiella rhinoscleromatis, you must think about in front a nasopharyngeal lesion imitating a malignant pathology.

1. Introduction

Known since VON HEBRA in 1870, it 'is a condition characterized clinically by a granuloma with a pseud-tumor development, the pathogen of which is Klebsiella rhinoscleromatis [1].

It develops in the nasal cavity in 95% of cases [2], but it can be localized in other sites of the respiratory tract. Its diagnosis remains histological by the demonstration of Mikulicz cells (1876) [3]. Its treatment is mainly medical, rigorous and prolonged monitoring. We report this case to bring attention to the patients with immunodeficiency problem regardless of presenting symptoms. This case report is in line with the SCARE criteria [4].

2. Case presentation

This is a 70-year-old patient, a housewife, of low socio-economic level, known diabetic under insulin therapy and hypertensive, a consultant for chronic headaches (4 months) median and posterior, not improved by symptomatic treatment. Associated with cacostmia without rhinorrhea and right earache. The ear, nose, and throat examination revealed an ulcerative budding tumor in the posterior wall of the nasopharynx, bleeding on contact, measuring 2 cm with a normal appearance of the rest of the nasal mucosa (Fig. 1) and chronic otitis media serum-mucous otitis type.

The remainder of the physical examination was normal, especially the cranial pairs and lymph node areas. The clinical examination could not differentiate between malignant or benign cause. Paranasal computed tomography (CT) scan (showed thickening of the right

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<https://doi.org/10.1016/j.amsu.2021.02.012>

Received 18 January 2021; Received in revised form 3 February 2021; Accepted 3 February 2021

Available online 10 February 2021

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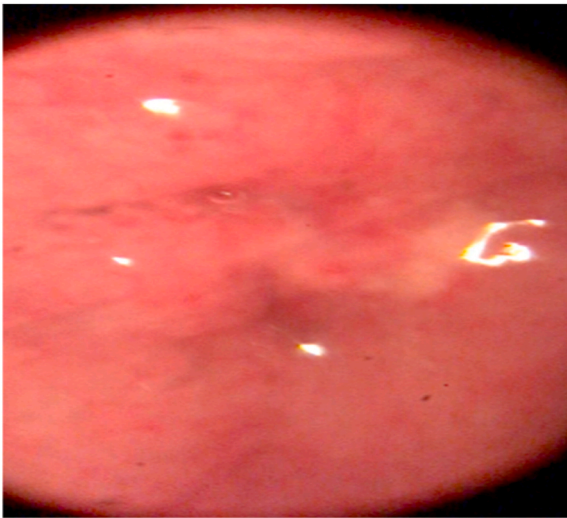


Fig. 1. Nasal endoscopy showing a bulging nasopharynx.

posterolateral wall of the cavum measuring $35 \times 20 \times 19$ cm enhanced after injection of literally extended PDC infiltrating parapharyngeal fat and lysis of the clivus posteriorly (Fig. 2 and Fig. 3). The biopsy under sedation, performed by an assistant professor (8 years of experience), concluded with the diagnosis of rhinoscleroma (Fig. 4 and Fig. 5).

A serological test (HIV and syphilis) was normal. The patient was out corticosteroid therapy 1mg/kg for 5 days and ciprofloxacin 500 mg \times 2 per day for 4 months. The evolution was good with the disappearance of the nasopharyngeal tumor with a follow-up of 1 month in the hospital via patient interview and physical examination, however, the intensity of headaches has decreased and not disappeared and a control paranasal CT-scan showed a slight reduction of tumor mass (Fig. 6).

3. Discussion

Rhinoscleroma is a chronic and progressive granulomatous disease of the nasal cavities and upper respiratory tract, first described by Ferdinando Von Hebra in 1870 [1], caused by a bacterium klebsiella rhinoscleromatis identified by Von Frisch in 1882 [5].

Rhinoscleroma is found mainly in rural areas with poor socioeconomic conditions. Rhinoscleroma is endemic in parts of Africa (Egypt, tropical regions), Southeast Asia, Mexico, Central, and South America, Central, and Eastern Europe with increased incidence in Spain

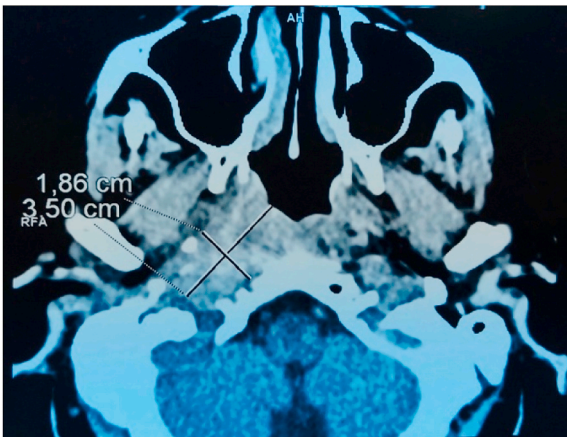


Fig. 2. Axial contrast-enhanced CT soft tissue window of the paranasal showed thickening of the right posterolateral wall measuring $35 \times 21 \times 19$ cm enhanced after injection of contrast product and removal of the Rosenmüller fossa.

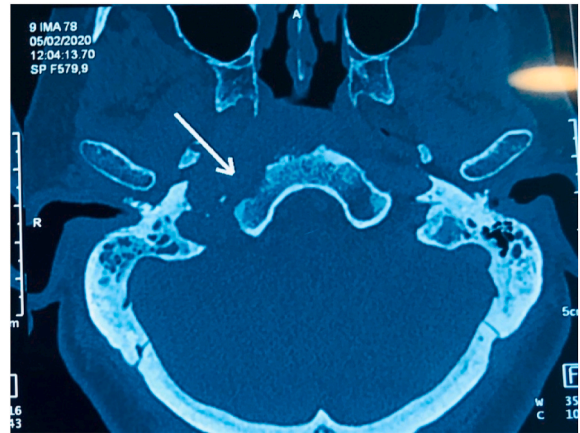


Fig. 3. Axial CT-scan bone window of the paranasal showing lysis of the nasopharyngeal lesion.

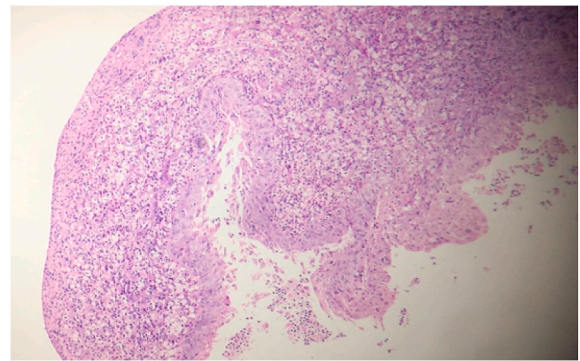


Fig. 4. Microphotograph showing chorion harbors an inflammatory infiltrate made up mainly of foamy macrophages (Mikulicz cells), mixed with polynuclear lymphocytes and plasma cells (HE; 100X).

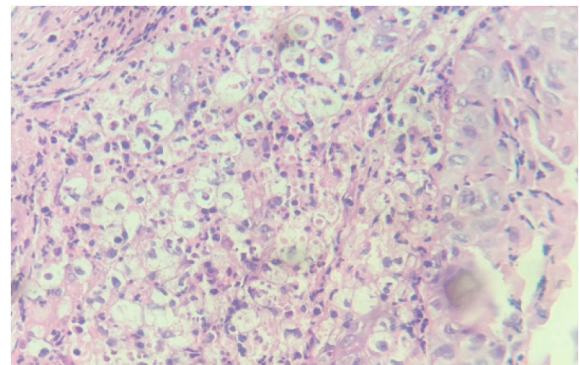


Fig. 5. Microphotography showing the foamy appearance of Mikulicz cells. An inflammatory infiltrate made up of polymorphonuclear neutrophils is also visible. (HE; 200X).

due to new immigrants from endemic areas [6]. It is rare in Western Europe [7].

Patients of all races can be affected. Rhinoscleroma generally affects women more than men in some publications while others report on gender predominance [8], primarily young adults in the third and fourth decades of life [9]. The transmission of this pathology is through the air facilitated by poor hygiene, malnutrition and humans are the only identified host.

The nasal cavity is the site most often involved (95–100%), followed

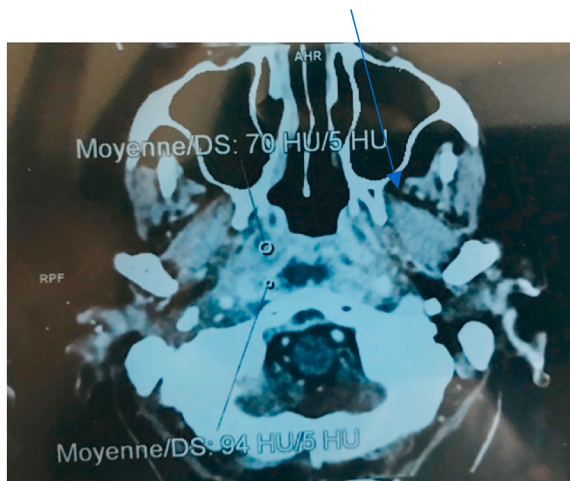


Fig. 6. Axial contrast-enhanced CT soft tissue window of the paranasal after one month of medical treatment showing a decrease in the size of the process.

by the nasopharynx (18–43%), larynx (15–40%), trachea (12%) and bronchi (2–7%) [10]. More unusual locations are reported: sinuses lacrimal tract, middle ear, orbit and endocranium [11].

The rhinoscleroma has an affinity for the nasal mucosa, usual in the areas of epithelial transition especially the junction area of the buccal stratified squamous epithelium and the nasal ciliary epithelium, whereas pharyngeal scleroma is usually located at the junction of the respiratory and squamous oropharyngeal epithelium [12].

The evolution of scleromas occurs slowly and insidiously in 3 stages: catarrhal (exudative), proliferative (granulomatous), and cicatricial (scleromatous) [13]. Our patient was seen at the proliferative stage, the clinical and endoscopic signs being nonspecific, the diagnosis is confirmed by the search for the germ using a culture of nasal secretions and by an anatomopathological study by highlighting specific cells of MIKULICZ which are histiocytes incapable of destroying *Klebsiella rhinoscleromatis* [14].

CT-scan of the paranasal was performed to explore the unusual headache the patient-reported revealing a nasopharyngeal tumor with lysis of the clivus.

The therapeutic management of rhinoscleroma is essentially medical, which consists of prolonged systemic antibiotic therapy for several months, since *Klebsiella rhinoscleromatis* is an intracellular bacterium whose medical treatment of choice is that which has a high concentration in the blood cells macrophages like rifampicin and fluoroquinolone [15].

The duration of treatment is not codified, various authors recommend its use for 6 weeks to 6 months or more, until the cultures and pathological examination are negative [16].

For our patient, we used ciprofloxacin at a dose of 500 mg twice daily for 3 months, followed by histological and CT-scan monitoring to reassess bone lysis.

Long-term follow-up is necessary to monitor the reactivation of the disease after treatment with improved health conditions.

4. Conclusion

Rhinoscleroma is a chronic granulomatous disease of insidious appearance caused by the bacteria *klebsiella rhinoscleromatis* facilitated by poor hygiene and immunosuppression [17] and which can cause bone damage.

Think about it even in the presence a bone lesion or associated with a tumor pathology.

Availability of data and material

The datasets in this article are available in the repository of the ENT database, Chu Mohamed VI Oujda, upon request, from the corresponding author.

Author's contributions

Dr. AB analysed and performed the literature research, Pr. FE Pr. AL, Pr.DB and Pr. RG, performed the examination and performed the scientific validation of the manuscript. Asmae Bazzout was the major contributors to the writing of the manuscript. All authors read and approved the manuscript.

Sources of funding

We have any financial sources for our research.

Ethical approval

The study committee of the university hospital center approves the favorable opinion to publish this work.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Registration of research studies

Not Applicable.

Guarantor

Dr.Asmae Bazzout.

Declaration of competing interest

There are no conflicts of interest.

Acknowledgements

I would particularly like to single out my supervisor at university hospital center for his flexibility, for my patient support and for all of the opportunities I was given to further my research.

I would also like to thank the annals of Medicine and Surgery committee for allowing this issue to exist.

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