

Introduction

Rhinoscleroma is a chronic progressive inflammatory disease of the upper respiratory tract affecting mainly the nasal passages (*Lenis et al., 2001*).

The name of rhinoscleroma was first used in 1870 by Von Hebra and Kaposi when describing a lesion in the nose which they labelled as a form of sarcoma. In 1877 Mikulicz described the histological features of this disease in detail and established its non-neoplastic inflammatory nature. Von Frisch identified the causative agent of this lesion in 1882 as a Gram-negative coccobacillus. Now known as *Klebsiella rhinoscleromatis* (*Abalkhail et al., 2007*).

Rhinoscleroma is a multifactorial disease with some identified risk factors, more frequent in middle aged women, living in rural areas with poor hygiene and nutritional conditions. Patients show a deficient immuno-cellular response which could be acquired by the infection or to other associated risk factor such as malnutrition, or could be Constitutional. It is a long-standing disease that begins in the nasal mucosa and extends to other respiratory tract organs, producing airway obstruction and sometimes threatens the patient life (*Maguina et al., 2006*).

The disease progresses in three stages; (1) catarrhal stage: Patients have non-specific rhinitis symptoms that progress to foetid rhinorrhea, crusting and nasal obstruction. (2) Hypertrophic (proliferative) stage: This stage includes granulation tissue with deformity by widening of the nasal pyramid and nasal septum cartilage destruction. (3) Sclerotic stage: This stage is characterized by extensive scarring (*Zhong et al., 2009*).

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There are numerous methods for diagnosis of rhinoscleroma, such as culture from the affected area, histopathological examination of the biopsy, serological and immunochemical tests (*Kim et al., 2003, A*).

In most cases treatment involves prolonged antibiotic therapy with aesthetic surgical reconstruction when necessary. However, rhinoscleroma is difficult to eradicate and its recurrence rate is high (*Bailhache et al., 2009*).