Rhinoscleroma

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A 22-year-old man presented with a 6-month history of bilateral nasal obstruction and nasal discharge that was associated with intermittent mild episodes of blood-tinged nasal discharge since 2 months. On examination, a pinkish irregular mass was observed in both the nostrils with complete obstruction of the right nostril. Computed tomography revealed a non-enhanced homogeneous mass in the left frontal, ethmoid, and maxillary sinuses that extended to both the nasal cavities (Figure 1). Histopathology revealed fragments of granulation tissue with inflammatory cells comprising several foamy to vacuolated histiocytes and plasma cells, suggestive of rhinoscleroma (Figure 2). The patient underwent surgical debridement of the mass and received ciprofloxacin 500 mg twice daily for 6 weeks. He was asymptomatic at 4 months of follow-up.

Rhinoscleroma is a chronic granulomatous disease affecting the region between the nose and the subglottis. It is caused by the gram-negative bacillus *Klebsiella rhinoscleromatis* and spreads by inhalation of contaminated droplets (1). The symptoms depend on the stage of the disease. In the atrophic stage, patients present with fetid nasal discharge and crusting, followed by the granulomatous stage, wherein patients develop epistaxis and nasal deformity, secondary to the destruction of the nasal cartilages (1). The final stage is the sclerotic stage, in which patients present with thick dense scars in the nose and upper airway, leading to complete nasal obstruction and even stridor due to laryngeal stenosis (1). The differential diagnosis includes neoplasms and other granulomatous disorders such as leprosy, syphilis, and Wegener's granulomatosis (2). The diagnosis is confirmed by biopsy, which shows characteristic Mikulicz cells (vacuolated histiocytes) and Russell bodies (eosinophilic inclusions in plasma cells) (2). Although early stages can be medically managed with tetracycline or ciprofloxacin, surgery is indicated in the later stages to address the compromised airway and for excision of the granulation or scar tissues (1, 2).

Although rhinoscleroma is a rare pathology, it should be suspected in patients living in endemic regions and presenting with nasal symptoms such as nasal obstruction and discharge. Biopsy is required for a definitive diagnosis, and the treatment primarily includes antibiotics.

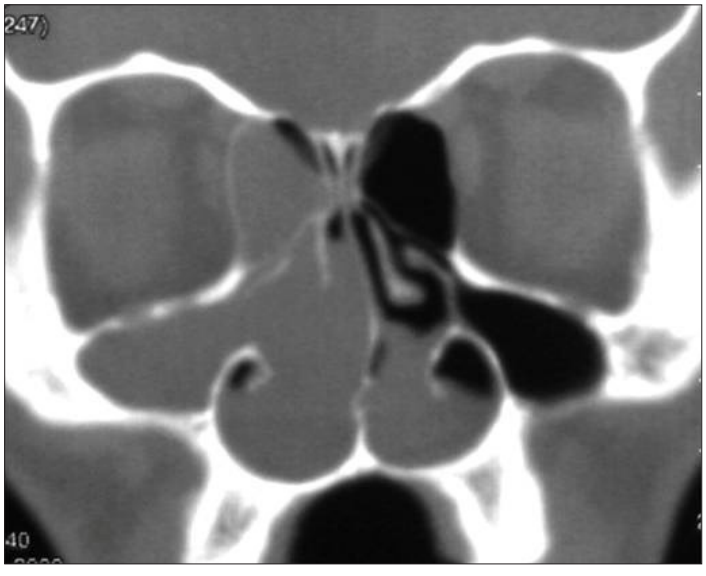

Figure 1. CT scan showing a homogeneous mass in both the nasal cavities, predominantly on the left side and extending to the maxillary and ethmoid sinuses

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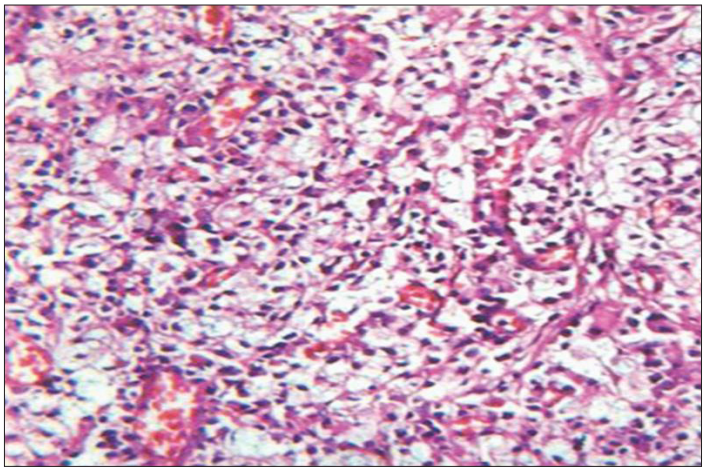

Figure 2. Histopathological image showing granulation tissue with vacuolated histiocytes (Miculicz cells) (hematoxylin-eosin staining, 40×)

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