Lepromatous Rhinitis an Unusual Presentation of Hansen’s Disease

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Introduction

- Leprosy (Hansen’s disease) is a chronic granulomatous infection caused by the bacteria Mycobacterium leprae.
- In 1994, the World Health Organization announced that Malaysia had eliminated leprosy. New cases of leprosy are rare in Malaysia, and the incidence is 0.76 per 100,000.
- Nasal and paranasal symptoms may occur early in the disease, often preceding the skin and neural manifestations.
- Atrophic rhinitis is a known manifestation of the disease, characterized by mucosal crusting, ozaena, epistaxis and paradoxical congestion of the nasal cavity. Secondary atrophic rhinitis may be caused by granulomatous infections including leprosy, tuberculosis and syphilis, comprise approximately 1% of the total cases.
- The authors presented a case of lepromatous leprosy with an unusual nasal presentation of ozaena and nasal blockage as the primary complaints.

Case Presentation

- A 31-year-old male patient, a private banker, presented with complaints of nasal obstruction, foul-smelling nasal discharge (ozaena) and intermittent epistaxis for the past 1 month, associated with multiple cutaneous nodules over the upper limbs and bilateral ear pinnae (Figure 1). The patient had no prior medical or surgical illnesses. He also denied contact with any leprosy patient or migrant workers, neither had he travelled to a leprosy-endemic region.
- On Nasoendoscopic examination revealed mucosal thickening, post-nasal drip and greenish-yellowish crusting in the nasopharynx, (Figure 2); however, there was no septal perforation.
- Ear examination revealed thickening of bilateral ear pinnae with several small nodules on the helix measuring 0.5×0.5 cm. Sensation over the pinna was reduced. Few subcutaneous nodules of various sizes, ranging from 0.5 to 1.5 cm in diameter were also seen on the flexor surfaces of both forearms. (Figure1)
- Laboratory investigations were all normal except for the elevation of erythrocyte sedimentation rate at 24 mm/hour. CT (computed tomography) of the paranasal sinuses revealed mucosal thickening at both maxillary sinuses, suggestive of mucosal polyps.
- Biopsy of the nasal mucosa and punch biopsy of the skin lesion revealed chronic granulomatous inflammation with multinucleated giant cells and abundant bacilli consistent with histoid leprosy. Wade-Fite and Ziehl-Neelsen staining revealed numerous bacilli (Figure 3). Mycobacterium PCR was positive for non-tuberculosis mycobacteria.
- The patient was referred to the infectious disease team and subsequently started on the required anti-leprosy regimen. The patient was also given tualang honey for intranasal application.
- On follow-up 2 months later, the patient reported improved nasal congestion and nasal discharge. Endoscopic examination revealed near resolution of atrophic rhinitis.

Conclusion

- The etiology of primary atrophic rhinitis remains unclear, however, secondary atrophic rhinitis is usually caused by sinus surgery (90%), radiation (2.5%), trauma (1%), granulomatous disease (1%) and infection (1%)
- In the present patient, the authors prescribed topical application of locally-produced tualang honey as an adjunct along with sodium bicarbonate solution nasal irrigation. This produced marked improvement in the patient symptoms of nasal dryness, crusting and congestion.
- Leprosy has been reported as eradicated in the majority of the developing countries including Malaysia. Nevertheless, it remains a major public health hazard, as new cases are still being reported, partly due to the influx of the migrant workforce. The present case report emphasizes the importance of the otorhinolaryngologist remaining vigilant and having high index of suspicion for leprosy in patients with chronic nasal symptoms to prevent the potential morbidities accompany this disease.