

CASE REPORT

Primary nasopharyngeal tuberculosis

Primary nasopharyngeal tuberculosis is a rare entity. We report a case (the first in our medical college) of a 40-year-old woman who presented with a foul-smelling nasal discharge. Nasal endoscopy was normal, except for irregular nasopharyngeal mucosa. A biopsy was taken, which indicated the presence of nasopharyngeal tuberculosis. The patient refused antituberculosis treatment, but returned 2 months later with bilateral neck nodes, which on excisional biopsy proved to be tubercular. She was then put on antituberculosis treatment, to which she responded. She is being followed up regularly.

Primary tuberculosis of the upper respiratory tract is uncommon. When it does occur the most common site of origin is the nasal septum near the mucocutaneous junction. A less common site is the posterior end of the septum, while the least common site is the nasopharynx. Tubercular involvement of the nasopharynx may be primary or secondary to pulmonary or extrapulmonary involvement. Primary tuberculosis of the nasopharynx is a rarer entity, seen in 0.12% of all tuberculosis patients. Immunosuppressive conditions, ageing, transplants and HIV infection lead to atypical presentations of tuberculosis and sometimes extrapulmonary manifestations, which result in delays in diagnosis and treatment. The presenting symptoms of nasopharyngeal tuberculosis are cervical lymphadenopathy (most common), epistaxis, hearing loss, tinnitus, otalgia, nasal obstruction, post-nasal drip, snoring, diplopia or osteomyelitis of the clivus. Clinically, it is difficult to differentiate between nasopharyngeal tuberculosis and carcinoma, necessitating histological evaluation of a biopsy of the nasopharynx. Treatment is with antituberculosis therapy.

Case report

A 40-year-old woman presented with a foul-smelling nasal discharge of 3 months' duration. She did not have epistaxis, nasal obstruction or a chronic cough. She denied having abnormal symptoms. General and systemic examination was normal. Nasal endoscopy was done, which was normal except for irregular nasopharyngeal mucosa. A biopsy specimen was taken from the nasopharynx, which was sent for histopathology and immunohistochemistry. Histopathology

was diagnostic of tuberculosis (Fig. 1) and immunohistochemistry was negative for malignancy. A repeat biopsy was taken from the nasopharyngeal mucosa, which was sent for acid-fast bacilli (AFB) staining and culture. AFB culture on Lowenstein-Jensen (LJ) medium grew *Mycobacterium tuberculosis*, while AFB staining was negative. The sputum was AFB negative and the chest radiograph was normal. ELISA for HIV and a venereal disease research laboratory (VDRL) test was negative. Routine blood investigations were normal. Ultrasound examination of the abdomen, and renal and pelvic organs was normal.

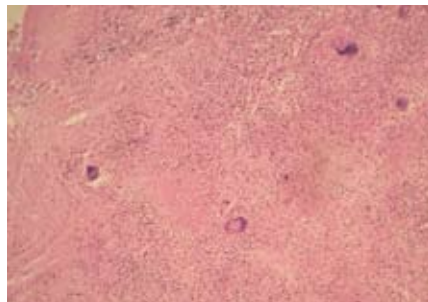


Fig. 1. Respiratory epithelium with underlying subepithelium, showing multiple epithelioid cell granulomas with caseous necrosis. Langhans' giant cells present.

Based on the history and investigations the patient was diagnosed with nasopharyngeal tuberculosis and was advised to take antituberculosis therapy, which she refused. She left the hospital against medical advice.

Two months later she reported with bilateral cervical adenopathy. Contrast-enhanced computed tomography (CECT) was done, which showed multiple hypodense nodes with rim enhancement in the left submandibular and upper jugulodigastric bilaterally, and at the level of the thyroid gland bilaterally. The nasopharynx showed a slight irregularity (Fig. 2). Excisional biopsy of the node was done, which was diagnostic of tuberculosis. There were no other significant findings during systemic and local examination. The patient was put on 4-drug therapy with isoniazid, rifampicin, pyrazinamide and ethambutol (HRZE) for 2 months (intensive phase), followed by 4 months of isoniazid and rifampicin (HR) therapy (continuation phase). She responded to therapy and is being followed up regularly.

Conclusion

Primary nasopharyngeal tuberculosis is a very rare disease and the presentation is variable. Nasal endoscopy should be done

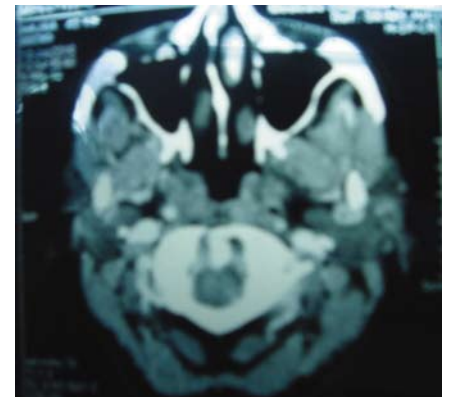


Fig. 2. Contrast-enhanced computed tomography of the neck, showing a normal nasopharynx, except for a very mild irregularity in the nasopharynx.

in all suspected cases and when there is a foul-smelling nasal discharge. Biopsies should be taken of suspicious lesions of the nasopharynx. It is difficult to make an accurate diagnosis of nasopharyngeal tuberculosis on imaging findings only and a biopsy is required to confirm the diagnosis and to differentiate it from a malignant or another condition. Treatment is with antituberculosis therapy.

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