CASE REPORT

An unusual site of presentation of tuberculosis: tuberculosis hard palate

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Abstract:
We report a case of young female patient of 22 years of age who presented to us in our out patient department with a short history of burning sensation in mouth and a swelling on the palate region on mid position, posteriorly. After routine history and physical examination CT scan, routine blood work and a biopsy of the lesion was advised. Result of the histopathology revealed granulomatous inflammation with langhan's type giant cells. A diagnosis of tuberculosis (TB) of palate was made. She had no signs of pulmonary TB. TB of palate is a rare entity and that too without any signs of pulmonary TB is exceptional which prompted us to do the case reporting. She was started on anti-tuberculous regimen and within the short span of only 10-days her response was dramatic. One should always therefore consider, in differential diagnosis, the possibility of tuberculosis when seeing a lesion in oral cavity as the response to drugs is excellent.

Key words: **tuberculosis of oral cavity, palatal tuberculosis, extra-pulmonary tuberculosis**

Introduction:
Tuberculosis (TB) is a major public health problem in Pakistan and unfortunately it has been one of the neglected health areas in past[1]. Pakistan ranks 8th amongst the countries with highest burden of TB in the world. According to World Health Organization (WHO) the incidence of sputum positive TB cases in Pakistan is 80/100,000 and for all other types it is 177/100,000. TB is responsible for 5.1% of total national disease burden in Pakistan. The disease is directly linked to socioeconomic status and 75% presents in productive age group.

TB is a chronic granulomatous infectious disease caused by Mycobacterium tuberculosis via inhaling contaminated (Pfluger's droplets) droplets and less so by Mycobacterium bovis or other atypical mycobacteria[2-9]. The oral mucosa is a rare location for TB infection and it may either be primary, or more often, a secondary infection. Oral manifestation of TB is with an incidence of 1.4% of total TB cases.[10] Floor of mouth, soft palate, gingiva, lips and hard palate can be involved, however, palate and tongue are the commonest sites of involvement for oral TB.[11]

Case report:
A young female of 22 years of age presented to us in our outpatient department with a very short history of burning sensation in mouth and a swelling in the oral cavity on the left half of the palate region. The local examination revealed a raised pinkish area of about 3x2 cm in size, with well defined margins, a hyperemic overlying mucosa and minimal tenderness was present (Figure 1). The oral cavity hygiene was good. In the left nostril's floor a small elevation was also noted. Bilateral cervical lymphadenopathy was also present. Her other ENT examination was unremarkable. There was no history of any weight loss or fever. Routine blood work was also unremarkable. CT scan was advised and it showed: an erosive lesion on left half of the hard palate with soft tissue component, measuring 3.1 x 1.4 x 0.9 cm in AP, transverse and cranio-caudal direction (Figure 2). Multiple bilateral lymphadenopathy was present with the larges one measuring, at level I on left side, 2.2 x 2.1 cm. Biopsy was done and histopathology revealed: langhan's type giant cells forming granulomas with focal necrosis (Figure 3) and staining for acid fast bacillus (AFB) was nega-

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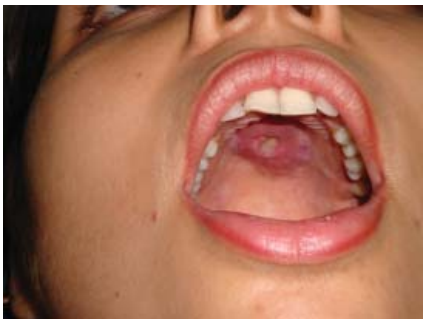

Figure 1: *Photo showing the lesion on palate*

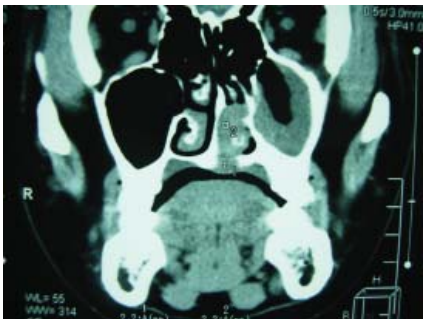

Figure 2: *CT Scan of the same patient*

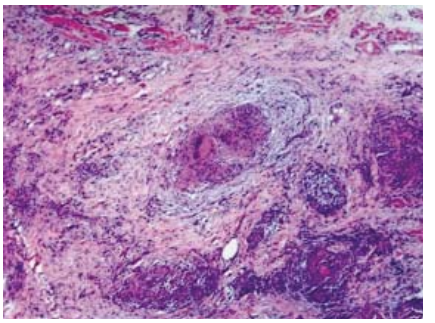

Figure 3: *Photomicrograph showing necrosis and giant cells (H & E stain)*

tive. A diagnosis of TB-hard palate was made. Her Mantoux test showed induration of 12mm; her ESR (Westergren method) in 1st hour was 25mm. No evidence of pulmonary TB was present nor was any family history. She was started on anti-tuberculous regimen comprising of Ethambutol, Rifmapicin, Isoniazid (INH) and Pyrinzinamide (PZA) according to weight and her response within 10-days was excellent. She's still under treatment with our constant follow-up. Our plan is to give a full course of anti-tuberculous treatment.

Discussion:

Approximately 2% of patients with pulmonary TB shows evidence of upper respiratory tract involvement[12], but primary TB of upper respiratory tract in absence of pulmonary TB is exceptional.[13] Oral lesions of TB are non-specific in their clinical presentation and are often overlooked by the clinicians.[14] The pathogenesis of oral involvement isn't clearly established, but it appears that organism gains entry in mucosal tissues through a break in mucosal surface.[4] Oral TB is common in 20-40 years of age group with a male-to-female ratio of 4:1.[15] The literature suggests that tongue is the most common site followed by the palate, gingiva, lips, buccal mucosa, alveolar mucosa and buccal sulcus[16]. Hard palate involvement is more frequent than soft palate involvement. The palatal lesion may be seen as a granuloma or ulceration, the latter being more common. Palatal lesions are often small. Primary TB involvement of palate is extremely rare!

Conclusion:

The aim for this case reporting is to highlight the fact that in oral cavity lesions, when making a differential diagnosis, the diagnosis of oral cavity TB also needs to be kept in mind as medical treatment in this condition is excellent and precious resources could be saved both in time and money!

References:

1. Vermund HS, Altaf A, Samo NR, Khanani R, Baloch N, Qadeer E, Shah AS. Tuberculosis in Pakistan: A decade of program, a future challenge. JPMA 2009 April;59(4) suppl: 1-3.
2. McCracken AW, Cawson RA. Clinical and oral microbiology. 5th edn. Washington: Hemisphere; 1983: 156-62.
3. Zheng JW, Zhang QH. Tuberculosis of the parotid gland: a report of 12 cases. J Oral Maxillofac Surg 1995;53: 849-51.
4. Shafer WG, Hine MK, Levy BM. A textbook of oral pathology. Philadelphia: Saunders 1983: 340-4.
5. Cawson RA, Odell EW. Essentials of oral pathology and oral medicine. 6th ed. NewYork: Churchill Livingstone 1998: 303-4.
6. Winn RE, Prechter GC. Pulmonary tuberculosis In: Hoeprich PD, Jordan MC, Ronald AR eds. Infectious disease. 5th ed. Philadelphia: JB Lippincott: 1944: 447-6.
7. Phelan JA, Jimenez V, Tompkins DC. Tuberculosis. Dent Clin North Am 1996;40: 327-41.
8. McCarthy PL, Shklar G. Disease of the oral mucosa. 5th edn. Philadelphia: Lea & Febiger;1980: 130-7.
9. Mignogna MD, Muzio LL, Favia G et al. Oral tuberculosis: a clinical evaluation of 42 cases. Oral Disease 2000;6(1): 25-30.
10. Iype EM, Ramdas K, Pandey M et al. Primary tuberculosis of tongue: report of three cases. British J Maxillofac Surg 2003;39: 402-3.
11. Gupta A, Shinde KJ, Bhardwaj I. Primary lingual tuberculosis: a case report. J Laryngo Otol 1998;112: 86-7.
12. Wilson WR, Montgomery WW. Infectious disease of paranasal sinuses. In: Paparella MM, Shumrick DA, Gluckman JL, Meyerhoff WL ed Otolaryngology, volIII, 3rd edn. Philadelphia: WB Saunders Company;1991: 1843-60.
13. Weidman WN, Campbell HB. Laryngeal tuberculosis. Am Rev Tuberc 1989;40: 85-98.
14. Prabhu SR, Wilson DF, Daftary DK, Jhonson NW. Oral diseases in the tropics. Oxford University Press, 1993.
15. Das P, Suri V, Arora R, Kulkarni K, Kumar K. Primary lingual tuberculosis mimicking malignancy: a report of two cases and review of literature. The Internet journal of Pathology 2007;6(2). available at: http://www.ispub.com/ostia/index.php?xmlfilepath=journals/ijpa/vol6no2/lingual.xml
16. Rogriguez G, Carnelio S. Oral TB-A review. In: Lucy T Smith's Focus on TB research. chapter VI. NewYork: Nova Science Publishers, Inc. 2005: 171.