Review Article
AMERICAN JOURNAL OF PHARMACY AND HEALTH RESEARCH
www.ajphr.com
2016, Volume 4, Issue 9
ISSN: 2321–3647(online)

The "Tuberculosis" In Otorhinolarygology as extrapulmonary sites

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ABSTRACT

TB is a disease with a very long history and one which has sprung up again and been affecting various countries. Among the factors responsible for this resurgence, HIV should be mentioned. HIV has been regarded as responsible for changing the characteristics of TB, such as its epidemiology, natural history, clinical presentation, and resistance to drugs. The manifestations of TB in cervico-cephalic regions are frequent and have aroused interest. TB may present in Ear, Nose, Larynx, Pharynx Also in neck any part of the body.

Keywords: Tuberculosis, HIV

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Received 08 August 2016, Accepted 15 September 2016

Please cite this article as: Meena S *et al*., The "Tuberculosis" In Otorhinolarygology as extrapulmonary sites. American Journal of Pharmacy & Health Research 2016.

INTRODUCTION

Tuberculosis (TB) is one of the oldest diseases that afflicts mankind, and has re-emerged as a significant cause of morbidity and mortality in several countries [1]. It is an infectious and contagious disease caused by a bacterium, Mycobacterium tuberculosis, also called Koch´s Bacillus (KB) [2]. According to the location of the outbreak, it can be classified as pulmonary TB, primary TB, TB reactivation and extrapulmonary TB [3].

Primary tuberculosis of the ear has rarely been reported, and the disease is usually secondary to infection in lungs, larynx, pharynx and nose [4,5,6].

Ear

T.B. airway in ear secondary to the pulmonary TB. It is too slow and insidious in nature. multiple perforation found on tympanic membrane and they merge in large central perforation in advance cases.in middle ear pale granulation found, also osteomylitis due to formation of bony sequestra.in advance cases profound hearing loss may be seen in PTA. Culture of discharge for TB bacilli, HPE Examination also send . Treatment is like Antitubercular drugs, local treatment and mastoid surgery if needed. direct involvement of the mastoid bone producing necrosis and it progresses to involve the middle ear [7,8].

Histopathology of granulation tissue - when abundant, it is the most reliable diagnostic method; however, biopsies frequently need to be repeated for confirmation.[9]

Nose

Primary TB of nose is very rare.it is mostly secondary to lungs. commonly anterior part of nose like septum, inferior turbinate. sequence of the stage like first nodular stage, then ulceration and after that perforation mostly in cartilaginous part of septum. diagnosis based on biopsy, staining for acid fast bacilli, culture also .treatment always antitubercular. In cases of nasal TB common symptoms are epistaxis, nasal crusting, nasal congestion, runny nose and recurrent polyps [10,11].nasal vestibule and the external nose may cause nasal deformity too[12].epistaxis, itching and sneezing [13].By anterior rhinos copy, nasal tuberculosis appears as a discrete, soft granular swelling of the nasal septum, which often ulcerates[14].

Lupus vulgaris is just like low grade tuberculosis, which is commonly effect on nasal vestibule or skin of nose\face. on skin Apple jelly nodule found which is brown in colour. on long or chronic stages it is present as chronic vestibulitis , perforation of cartilaginous part. Biopsy is diagnostic tool. Treatment always antitubercular drugs. Very few cases of maxillary sinus TB have been reported till date.[15,16,17]. TB of paranasal sinuses is usually a disease of adults.

TB Parotid

Salivary gland also positive or involved by TB. It is present as nontender mass. Sometime underling skin undergoes necrosis leads to fistula formation. treatment is excision of involved gland or tissue and antitubercular drugs for control of disease. Salivary gland mycobacterial infections are very rare. Result from an infected intraparotid lymph node. These nodes are infected either through lymphatic channels draining the tonsil or nasopharyngeal area.

retrograde migration of disease through Stenson's duct. Patients are usually asymptomatic. Lymphadenitis which mimics sialadenitis. Diagnosis by fine-needle aspiration cytology. Treatment : ATT, Surgical intervention should be avoided in these patients.

T.B. Tosil

Tonsillar tuberculosis still exists and may be a diagnostic challenge to otolaryngologists. Tuberculosis of Tonsil is suspected in a patient if the tonsil is enlarged, with rough and granular surface with or without cervical lymph node enlargement, who is complaining of pain in throat and pain on swallowing. And more so if patient is also a diabetic.

Tonsil is enlarged, proper investigations and biopsy can confirm the diagnosis. Early detection and treatment are essential for cure. Decreased host immune mechanism like diabetes mellitus can predispose to tubercular infection and tonsillar granulomata with or without cervical lymphnode enlargement. Isolated unilateral tubercular infection of the tonsil without cervical lymphnode in a diabetic patient is rare.

TB Larynx

Laryngeal tuberculosis is very rare It accounts for less than 1% of all extrapulmonary tuberculosis[18.]Always secondary to lungs TB. Mostly found in middle age group, via bronchogenic or heamatogenous route for the larynx. posterior part is more common then anterior part. sequence of 1. Interarytenoid fold 2. Ventricular band 3. Vocal fold 4. Epiglottis weakness of the voice is earliest symptom followed by hoarseness. Severe pain occurs in ulcerative TB. Marked dysphagia in later stages. on vocal cord ulceration seen as mouse nibbled appearance, pseudoedema of epigltis, turban epiglottis found. chest x-ray, sputum examination and biopsy from lesion for confirmation. treatment is voice rest and anti tubercular drugs. Recently, it has been reported that laryngeal involvement is more commonly caused by hematogenous or lymphatic spread of theorganism[19] .Lupus of larynx is indolent tubercular but found in anterior part like epiglottis first and painless. there is no pulmonary tuberculosis. treatment is antitubercular drugs. It should be kept in mind that tuberculosis and malignancy of larynx may co-exist.[20]

Any patient presenting with ulceroproliferative lesion of the oropharynx should be subjected for histopathological examination to rule out malignancy and a differential diagnosis of tuberculosis should be kept in mind. Secondary tuberculosis of pharynx is quite a rare condition. It is said to be present as an ulcerated, lipoid lesion or as granuloma. It is secondary to tuberculosis elsewhere, usually pulmonary and may be associated with cervical lymphadenopathy

TB Lymph Node

In the neck any group of lymph node may involve. any age group or sex may involve lymph node may be single or multiple matted due to periadenitis. when neck node caseate they form abscess.it may then adhere to skin or underlying structure like vessels, nerve etc. after involvement of skin it may present as discharging sinus. Fnac or lymph node biopsy reveals granulomatus lesion. AFB may br positive. chest x-ray, skin test & see other lymph node group for involvement.in AIDS , TB is also common in HIV positive patients. Treatment for 2 months 4 drugs (HRZE) regimen and 4 month 2 drug (H& R) regimen . node initially increase in size when start treatment and then decrease. If not cure by drugs it should be excise the node or abscess. Fistula formation was seen in nearly 10% of the mycobacterial cervical lymphadenitis.[21,22] Cervical nodes in the submandibular region are most commonly affected in children.[23,24]

HIV with T.B.

In conclusion, ENT evaluations by clinicians among HIV infected patients are highly recommended. HIV replication in CD4 positive cells renders the body more susceptible to opportunistic infections and neoplastic disorders. Such pathogens spread quickly in the vulnerable host, resulting in the emergence of uncommon symptoms and malignancies reported in immune compromised patients [25,26,27.] Therefore, further investigations should be required in all complicated cases, particularly consultations with ENT specialists given the high prevalence of ENT manifestations. It is particularly crucial to diagnosis these symptoms early to ensure prompt treatment [28]. Early diagnosis of HIV infection via recognition of manifestations ensures longer survival of patients.

It is particularly important to note that ENT conditions may be occur in both HIV-positive and negative patients; however, specific symptoms are only reported in unusual locations and in a more aggressive fashion among HIV-positive infected individuals. Recognition of localized manifestations of the head and neck may improve the clinician's ability to diagnose HIV infection clinically and provide the patients with the best chances for timely and effective treatment.

CONCLUSION

Tuberculosis of the head and neck region though not very frequent, still remains an important clinical entity which should be kept in mind especially in developing countries. Involvement of the cervical lymph nodes remains one of the commonest manifestations. Fine needle aspiration cytology has proved to be very valuable investigation in the diagnosis of the tuberculous lymphadenitis. Tuberculosis of the head and neck region need not to occur always secondary to pulmonary tuberculosis Tuberculosis of the ENT region though not very frequent, still remains an important clinical entity. Which should be kept in mind especially in developing counmes. Cervical lymph node involvement remains one 01' tl1'e commonest mani festations. Low standards of living. overcrowding. poor hygiene and sanitation are the main contributors for the l liter of eradication of this disease. Fine needle aspiration cytology has proved to be a very valuable investigation in the diagnosis of cervical lymph node involvement. Antituberculous drugs form the mainstay of the treatment although some patients might need surgical intervention.

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