

Ent Manifestations of HIV Infection

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Introduction

The pandemic HIV infection is an alarming situation across the globe. The symptoms prevail in the head and neck region as high as 80%. ENT and head and neck surgeons are the first clinicians to encounter such patients. Oral, throat, nose and ear, neck and sinus manifestations are common in HIV infections. A complete knowledge of the events in the discourse of the disease is necessary. ENT sign and symptoms are important indication of failure of antiviral therapy and be seen in advanced cases. In this review, we will discuss the frequent signs and symptoms of HIV infection in the areas of ENT and head and neck region. Every physician, health-care provider and particularly ENT practicing clinician should be aware of these ENT manifestations in HIV-infected patients so as to enable him early and appropriate intervention thus alerting a high index of suspicion by HIV testing in patients attending hospitals with ENT symptoms. "The prevalence of ENT manifestations amongst HIV-positive participants in a study done at Muhimbili National Hospital reported a prevalence of 34.1%" [1]. In another study in Iran prevalence is of 61.8% is reported [2]. Whereas a study in India reported a prevalence of 79% for ENT manifestations [3]. "ENT manifestations as part of the opportunistic infections are recognized as opportunistic infections in HIV and have been used in the WHO clinical staging of HIV" [4].

Oral cavity and oropharynx

Oral cavity

Candidiasis is the most frequent lesion of HIV in the mouth. The typical lesion in the mouth is a white patch, often on the tongue it is always painless and is mostly found on the lateral aspect of the tongue. "The three frequent types of candidiasis in the mouth

of HIV infected patients are the pseudomembranous type, the erythematous type and angular cheilitis type" [5].

EBV is usually an opportunistic infections in HIV-positive patients and is identical by white hairy plaque like lesion on the lateral border of the tongue which cannot be scrapped its hairy look is due to elongated filiform papillae it can be treated by topical trichloroacetic acid, and orally by acyclovir, One of the most painful and troublesome conditions of the oral cavity is recurrent aphthous ulcerations but in contrast to small aphthous lesions which are more commonly seen in HIV-infected patients giant ulcers are seen and this is due to coalescing of smaller ulcers, other associated symptoms are stomatitis anorexia odynophagia, dehydration and weight loss.

The pseudomembranous white patch or plaque-like lesions can be wiped out leaving a bleeding base from the surface of, tongue, and from other buccal hard or soft palate, mucosal surfaces. The diagnosis is established with fungal culture report. Treatment is by Topical Nystatin or systemic Ketoconazole or Fluconazole therapy

Oral cavity: Bacterial infections

Periodontal diseases (With CD4 count < 100).

The 2 types are

- Linear gingival erythema
- Necrotizing gingivitis/ulcerative periodontitis.

Treatment for this is: Debridement, betadine/chlorhexidine gargle, metronidazole.

Oral cavity: Viral infections

Oral Human Papilloma Virus Warty or papillomatous lesions in the mucous membrane of oral cavity and oropharynx herpetic lesion of, buccal mucosa, palate, lips or gums Herpes simplex are rounded ulcers erythematous usually in the gingiva hard palate and tongue they recur frequently, and are persistent in HIV patients. Herpes labialis are associated with fever and classical blister and are diagnosed by Tzanck test and are treated by acyclovir.

Oral cavity - Neoplastic lesions

Kaposi sarcoma is the most common oral cavity tumor in HIV and AIDS. Although it's rare tumor but usually if present is associated with advanced HIV. They are caused by a type of herpesvirus, it is a vascular tumor, involving blood vessels and soft tissue in different areas of the body like skin, mucosa, or the viscera and it originates in the endothelial cells that line blood vessels and lymphatic vessels. It does not invade the fascial planes.

- **Epidemic KS:** This is very common type of KS. Endemic KS: it is known as African Kaposi sarcoma, this type is relatively common in Africa and can affect children and adults.
- **Iatrogenic KS:** Its diagnosis is made by Biopsy to r/o malignancy its appearance is usually a symptom of poor control of the HIV virus.

It appears as dark purple marks on the tongue but most commonly on the hard palate Intraoral lesion may be the first symptom of late stage HIV disease lesion is nodular, or ulcerated or raised or macular, usually in hard palate or buccal or gingival mucosa, they may also be present over dorsum of tongue and soft palate they do not blanch, can get infected. Associated pain and bleeding is common, biopsy shows HPE: interweaving bundles of spindle shaped cells with vascular slits and RBC extravasations. Treatment: Surgery: local excision or electrodesiccation and curettage, cryosurgery – Radiation therapy – Chemotherapy: vincristine, etc.

Otological manifestations

Ear: – Otitis externa, otitis media, inner ear involvement (sensorineural hearing loss, disequilibrium), and facial nerve palsy. HIV infection often presents with extensive seborrheic dermatitis of external ear, the face, scalp, and the periauricular region. Otitis externa, otomycosis, Serous otitis media Kaposi's sarcoma of EAC Sudden SNHL: Unilateral/Bilateral Malignant otitis externa

Pseudomonas and Candida infection of external and middle ear Sensorineural hearing loss, Ramsay Hunt Syndrome, Facial paralysis.

The most common Otologic problem reported in HIV-infected patient is serous otitis media. Often in pediatric group because of eustachian tube dysfunction with depressed cell-mediated immunity Suspicion of HIV infection is more likely with presence of large lymphoid proliferated adenoids and a positive history of risk factors of HIV. Adenoidectomy is preferred to relief obstruction in the eustachian tube.

In patients with HIV infection, malignant otitis externa is frequent. AIDS patients developing malignant external otitis tend to be younger Aspergillus fumigatus and Pseudomonas aeruginosa are more isolated in HIV-infected patients. Diagnosis for HIV should be suspected of patients with painful otorrhea not responsive to treatment for simple otitis externa. Most of them having sensorineural hearing loss. Which is worse with increasing frequencies, and moderate at high frequencies but speech discrimination is not effected. The SNHL can be a result of infection in peripheral auditory nerve or the central nervous system. PTA shows high frequency loss Stapedial reflex is altered to retrocochlear pattern. There is vestibular damage progressively resulting in increased imbalance and ataxia and Fistula test is positive without middle ear disease (Hennebert's sign) transient vertigo and nystagmus on exposure to sudden high intensity there can be sudden B/L hearing loss.

Nasal and paranasal sinuses manifestation

Herpetic lesion of nose

Herpetic lesion of nose Patients due to HIV infection may get ulcers caused by herpes simplex virus or herpes zoster virus. The lesion usually starts in the nasal vestibule and then extends to involve the nasolabial region. These ulcers are because of reactivation of chronic herpes infection of the geniculate ganglion. The lesion is diagnosed by culture or Tzanck smear. Nasal obstruction, foul smell, crusting, epistaxis Ulceration and fibrosis leading to distortion of nasal ala, tip, vestibule – Cartilaginous septal perforation.

Recurrent sinusitis

Chronic Sinusitis it is common in HIV-infected patients due to changes in the mucociliary clearance. Causative organisms include

Cryptococcus neoformans, Aspergillus and Candida albicans. The frequently involved sinus is ethmoidal, followed by maxillary. Unexplained fever or headache, with low CD4 cell counts is highly suspicious of HIV. The level of CD4 count indicates the severity of sinusitis in HIV patients.

Laryngeal and esophageal manifestations

Larynx 10% involvement. Usually there are symptoms of hoarseness, dysphagia and dyspnea. Clinical examination reveals false cord are edematous and pale, whereas the rim of epiglottis becomes rounded. True cord is usually not affected progresses is rapid causing life threatening airway obstruction.

Neck manifestations

Cervical lymphadenopathy is by far and large the frequent manifestation of HIV infection in the neck. It appears in the form of diffuse lymphadenopathy in different sites of the neck but mostly in the posterior triangle with long durations. In salivary glands it manifests more as bilateral parotid swelling due to reactive hyperplasia of intraparotid lymph node, benign.

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