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ORAL CAVITY LESIONS IN PEDIATRIC HIV

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Abstract. The oral cavity represents one of the segments which isearlier and more frequently affected during HIV infection in a child case. Dystrophies and dental dysplasia for children with HIV infection occur more frequently. Also, the shape, the layout and number of teeth are often affected in these children. There are studies that show a higher frequency of dental caries predominately in temporary dentition of these patients. But there are statistics that the dentition would not be affected by HIV, but by completely different factors such as genetic factors, local hygiene, socio-economic factors etc. The authors present an etiologic classification of dental manifestations in HIV infection.

Key words: HIV infection in children, dental diseases, child

Introduction

In the course of an HIV infection in children, the mouth is one of the segments affected frequently and early.

Treatment of dental disease occurring in HIV infection meet the principles of specific treatment where the etiology may be indicated or suspected, treatment which is associated with a local treatment. [1]

Impairment of the immune status can be prevented by initiating antiretroviral therapy, initiated according to national treatment guidelines and thus can prevent the emergence of certain pathological conditions in the oral cavity. [2]

Etiological classification:

The main categories of oral lesions associated with HIV infection include fungal infections, viral, bacterial and associated neoplastic processes [1].

A brief classification consists of [1,2]:

- Fungal infections
  - Candidiasis
    - ◊ pseudomembranous
    - ◊ erythematous
    - ◊ angularcheilitis
  - Histoplasmosis
  - Cryptococcosis
  - Geotrichoza
- Viral infections
  - Herpes simplex infection
  - CMV infection (Cytomegalovirus)
  - EBV infection (Epstein Barr virus)
  - Varicella-zoster virus infection
  - Papilloma Virus Infection
- Bacterial infections
  - Linear gingival erythema
  - Necrotizing ulcerative periodontitis
  - Mycobacterium avium complex infection
  - Bacillary angiomatosis
- Neoplastic processes
  - Kaposi's sarcoma
  - Non-Hodgkin's Lymphoma
  - Squamous cell carcinoma
- Unknown etiology diseases
  - Recurrent aphthous ulceration
  - Immune thrombocytopenic purpura
  - Xerostomia
  - Hyperpigmentation mouth through a melanin storage [1,2]

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Bacterial infections:

1. Periodontal disease associated with HIV

This condition is due to exacerbation of bacterial flora in the context of immunosuppression. Frequently, this condition is associated with painful satellite adenitis that must be differentiated from chronic regional

lymphadenopathy which is due to HIV infection itself.

As events, we include: gingivitis, aggressive evolutionary periodontitis, which are located mainly in the lower incisors, premolars and molars, but also in the mandibular region, retro-molars. [1,2]

The types of lesions encountered are: linear gingival erythema, necrotizing ulcerative periodontitis marginal rapidly progressive bone and alveolar destruction. [2]

2. M.Tuberculosis infection

Buccal diseases are the persistent ulcers that are located in particular at the tip of the tongue.

3. MAC infection

This is a systemic infection that can give also oral tissue damage such as abscesses, granulomas and necrotic ulcerative lesions of the mucous membrane extended even to the underlying bone. [3]

Viral infections:

1. Infection with cytomegalovirus (CMV)

CMV is rarely criminalized in the child's mouth lesions infected with HIV. The appearances of these lesions are painful ulceration. [1]

2. Infection with Herpes Simplex Virus (HSV)

Skin lesions were blisters, ulcers which are located on the dorsal tongue mucosa of the hard palate, gums. Their location is at the mouth and lips, with a natural evolution, often chronic, recurrent and sometimes with tend dissemination. [3]

3. Epstein Barr infection (EPV)

In 1984 Greenspan and associations described for the first time, hairy leukoplakia of the tongue that is associated with immunodeficiency by infection of HIV. [4] Skin lesions are irregular, striated, soft hairy-looking, yellowish white color and they are arranged on the edges of the tongue, but can also be found on the palate, buccal corner mucosa and at the bottom of the mouth. [4] From histologically point of view, we meet marked hyperkeratosis, hyperplasia, reduced inflammation of sub-epithelium, the surface being covered by a paracheratosis layer which tends to detach the flaps. [3]

The differential diagnosis is realized with: geographic tongue, which has genetic trait; tobacco leukoplakia in which the lesions are located on the edges of the tongue, it is well defined and it is characteristic of smokers; hyperplastic candidiasis, harder to distinguish; lichen plan, which is often localized at the corner mucosa, rarely, on the edges of the tongue. [1]

4. Infection with varicella zoster virus

Intraoral lesions in infection with zoster virus are represented by the blisters and ulcers distributed along the branches of the trigeminal nerve, usually unilateral. Ulcerative lesions seen in chickenpox can occur in large numbers in the mouth with severe manifestations. [5,6]

5. Papillomavirus infection

Human papilloma viruses cause oral lesions and anogenital skin in addition to those, including vulgaris warts, condyloma and focal epithelial hyperplasia. [5, 6]

Fungal infections:

1. Candidiasis

Clinical manifestations of oral candidiasis may accompany other morbid conditions that are determined by different causes, immunosuppression, diabetes, dry mouth, antibiotic therapy, chemotherapy, corticosteroids. [6]

Oral candidiasis has the following clinical manifestations:

a. Pseudo-membranous candidiasis, characterized by the presence of plaques whitish, yellowish-white, which is difficult to remove by scraping. After scraping action it remains a buccal mucosa intensely congested, sometimes bleeding. [7]
b. Candidiasis congestive, in which we find extensive damages, the face reddish dorsal tongue. Depapilate areas and atrophied filiform papillae remain at this level [7]
c. Angular cheilitis, which is manifested by cracks or ulcers in the mouth corners. They may be isolated or may be accompanied by other injuries. There is a possibility that the injuries may be superinfected with the emergence of areas of local inflammation and subsequently crusting. [6,7]

2. Histoplasmosis

The lesions are disseminated to the floor mouth, tongue and they have the appearance of ulcers, induration with pain at this level. Alongside these events we meet also systemic manifestations of disease: pulmonary manifestations, weight loss, persistent fever, etc. [8]

Histoplasmosis diagnosis is suggested clinically and epidemiologically, but it is confirmed by histopathology and immunofluorescence. [8]

3. Cryptococcosis

Its location is on the tongue, palate, where persistent ulcerative lesions appear with endured painful edges. Diagnosis is established by biopsy, cultures, direct microscopic examination. [6]

4. Geotrichoza

It is accompanied by congestion, bleeding and pain and it mainly affects the gums. [7]

Neoplasms:

1. Kaposi's sarcoma

It is characterized by lesions in the mouth initially asymptomatic nodules aspect of patches and reddish, brown or purplish blue color, single or multiple. [9] It is rare in children, with subsequent tumor development, painful, localized at any level in the mouth. Differentiating between angioma, angiosarcoma, lymphoma non-Hodgkin's lymphoma, squamous cell carcinoma it is made by histopathological examination. [9]

2. Non-Hodgkin lymphoma

The appearance consists of nodules, ulcers train, especially at the gum level, but it can be developed anywhere in the mouth, with nodal point of departure. And it is rarer in children. [10]

3. Squamous cell carcinoma

It is found rarely and it is usually disposed on the sides of the tongue. [9]

Unknown etiologydiseases:

Among the diseases with unknown etiology include: recurrent aphthous ulceration; progressive necrotic

ulceration; nonspecific aphthous ulcers; ulceration of iatrogenic origin; idiopathic thrombocytopenia; dry mouth; hyperpigmentation mouth landfills melanin.

Thrombocytopenia can occur in primary lesions in the form of micro-petechia or bruises of different sizes in the mouth. [11]

Xerostomia consists in dry mouth, which can be caused by damage to the salivary glands, the administration of certain drugs.

Hyperpigmentation mouth may occur spontaneously or after taking certain medications. [11]

It has to be mention, in children with HIV infection, dental dystrophies and dysplasias are more common. Tooth decays also have a high frequency, especially at temporary dentition. [10]

In other opinions, dentition would not be affected by HIV, but by genetic, socio-economic or local hygiene etc.

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