

ASPECTS OF ORAL MUCOSAL PATHOLOGY CAUSED BY ADVERSE DRUG REACTIONS

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Abstract: Oral and dental structures are sometimes based adverse drug reactions. The most frequently affected salivary glands, oral mucosa, periodontal tissues, teeth, alveolar bone. The most common undesirable event is dry mouth, but such injuries can occur ulcers, aphthae, gingival hyperplasia, discoloration of teeth and oral mucosa. The article proposes to make an overview of oral lesions that occur following administration of different classes of drugs.

Cuvinte cheie:

medicamente, reacții adverse, mucoasa orală, patologie

Rezumat: Structurile orale, reprezentate de glandele salivare, mucoasa orală, țesuturile parodontale, dinții și osul alveolar sunt uneori sediul reacțiilor adverse la medicamente. Cea mai frecventă manifestare nedorită este xerostomia, dar pot apare și leziuni de tipul ulcerărilor, aftelor, hiperplaziilor gingivale, colorații ale dinților sau mucoasei orale. Articolul își propune să realizeze o trecere în revistă a leziunilor mucoasei orale care apar ca urmare a administrării diferitelor clase de medicamente.

CASE PRESENTATION

Adverse reactions are undesirable effects caused by medication of the patient. Such reactions can be classified, after the mechanism of production as it follows: the reaction type (reaction augmentative) or Type B (odd side).

Type A reactions are the result of an exaggerated but normal pharmaceutical action of a drug prescribed in the usual therapeutic dose. Examples include dry mouth following the use of antimuscarinic agent atropine and prolonged bleeding as a result of prolonged action of aspirin. Type A reactions are predictable and they are based pharmacology. They usually depend on the dose and, although their incidence is frequent, the mortality caused by them is generally low.

By contrast, type B have aberrant reactions because their effects are not predictable in any pharmaceutical drug given in usual therapeutic doses of a patient whose body normally reacts. As an example, we have hypersensitivity to penicillin. Many of these reactions are caused by changes of immunity. Type B reactions are usually unpredictable. Although their incidence is usually low, the mortality caused by them can be high.

Among the adverse reactions with a big impact in the oral cavity, these should be remembered:

- Damage of salivary glands: Xerostomia; Sialoreea
- Changes in taste
- Damage of the oral mucosa: ulcers, lichen planus lesions, change of colour of the mucosa
- Gingival hypertrophic
- Changes in dental structure and color

Although xerostomia is the most common manifestation of the oral cavity related to the consumption of drugs, we still refer only to fixed and mobile modificarieling the oral cavity

Gingival hyperplasia occurs at the beginning without pain, then there is a hyperplasia of the interdental papilla that extends to the edges of the oral and buccal gingival. Hyperplasia is affecting mainly the previous regions and jaws, causing

disturbances physiognomy, but can interfere with speech, chewing or tooth eruption.

Table no. 1. Drugs that induce gingival hyperplasia

Antiepileptics	Phenytoin
Antineoplastic	Cyclosporin A
Calcium antagonists	Nifedipin Captopril Diltiazem Verapamil
Oral contraceptives	

Figure no. 1. T. A. 28 years old, gingival hyperplasia after treatment with oral conception



Effect on oral mucosa and tongue

A variety of well-known medicines can cause or exacerbate problems of oral mucosa and tongue. Such damage can be classified by specific injury and include:

- Oral ulceration
- Vesiculobullous lesions
- Erythema multiforme
- Lichenoid eruption
- Stainin
- Ulcers of the oral mucosa are lesions that implicate epithelium but connective tissue underlying tissue also; can be considered an autoimmune reaction of the oral mucosal epithelium.

Oral mucosal ulcers can be caused because of the directly contact of the oral mucosa with drugs: trichloroacetic

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CLINICAL ASPECTS

acid, cocaine, hydrogen peroxide, menthol, chlorine, phenol, camphor, tincture of popolis.

Table no. 2 .Drugs that induce oral ulcers

Citotoxic drugs – metotrexat, ciclosporina, propilthiouracil, vincristine, Cisplatin, Leukeran(Chlorambucil)
Antirheumatic drugs, azathioprine, penicillamine
Potassium chloride
Nonsteroidal anti-inflammatory-Aspirin, ibuprofen, aspirin, ketorolac
Suppression-levamisole, chloroquine
Antihypertensives Losartan, captopril
Vancomycin antibiotic, tetracycline, penicillin, doxaciolina, chloramphenicol
Hydrogen peroxide

Figure no. 2 Ulceration of the palate , pac 46 years old, whit AML and treated with chemotherapy (idarubicin, cytarabine), Allopurinol,



Ulcerative lesions

Vesiculobullous lesions are skin lesions that consist of a collection of serosity, circumscribed, with floating epithelial walls. May be located superficial (oral mucosa, skin) or deep (dermo-epidermal).The exact mechanism by which this reactions is unclear, but seems to be produced by the direct irritant effect . Patients who used to inhale steroids for more than five years are more likely to develop such lesions. The same type of reaction was seen in naproxen and penicillamine.

Lichenoid lesions rarely occur on the oral mucosa and are caused by Allopurinol, beta blockers, penicillamine, tetracycline, and others.It is known that drugs causing lichenoid reactions may lead to the detection of latent lichen planus or it can aggravate it, rather than to induce de novo disease.

Erythema multiforme is a mucocutaneous plurietiological mucosa disorder, characterized by different types of clinical lesions including bubble vesicles, papules, macules. Mucous membranes (ocular, oral and genital) are usually involved, and sometimes lesions confine only to these membranes. Stevens-Johnson syndrome is a severe form of erythema multiforme.

In the etiology of viral disease,are often involved viral and bacterial infections, but especially consumption of drugs (*penicillin, tetracycline, sulfonamides, estrogens, anti-epilepticelcor, oxycam and systemic corticosteroids.*)Recent studies have estimated that drug therapy is the alleged trigger mechanism in 4% of cases of erythema multiforme.

However in Stevens-Johnson syndrome the drug association increases to 80%. Oral lesions of erythema multiforme should disappear in less than 14 days after cessation of medication.. Stevens-Johnson syndrome is much more serious and can be fatal. For fulfillment of this condition requires medical management.

Toxic epidermal necrolysis or Lyell's syndrome is the most severe form of disease resulting in erythema multiforme spectrum and Stevens-Johnson syndrome

Discoloration of the oral mucous stains may occur after direct contact or after systemic absorption of the drug.

Table no. 3. Drugs that cause discoloration of the lining

Gray discoloration of oral mucosa	<ul style="list-style-type: none"> • Antimalarial, antirheumaticchloroquine, hydroxychloroquine (Plaquenil) • Fluoxetine Prozac
Blue discoloration of the lining	<ul style="list-style-type: none"> • Silver Amalgam • Lead • Bismuth • Antiarrhythmics Quinidine, Amiodarone • Phenothiazines (chlorpromazine) • Antiparasitic, antirheumaticMepacrine
Brown discoloration of the oral mucosa	<ul style="list-style-type: none"> • AminofenazonaAlgocalmin • Oral contraceptives • Smokers melanosis • Fluoruracil • Ketoconazole • Menthol • Minocycline, Doxycycline similar • Methyldopa
Brown discoloration of the tongue, black hairy tongue	<ul style="list-style-type: none"> • Rinses with chlorhexidine • Flush with hydrogen peroxide solutions • Phenolphthalein • Propranolol • Oral Cortisone administrat • AntiacideLansoprazole

Figure no. 3. Pac. O. G, 36 years old ,whit haemophilia A, have a black hairy tongue after taking antibiotics (Augumentin -7 days) and chlorhexidine mouth rinse



In conclusion, medication for various afectuni causes significant changes in the oral cavity, sometimes reversible, but significant and sometimes irreversible. A careful medical history performed by your dentist can help the classification of lesions detected in lesions in the mouth type of medication side effects established for various ailments. Working with your doctor dental specialist is very important medication for the disease rarely overall currency can be.

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