

Oral Pathology

Ø Diagnostic and descriptive terminology:

Vesicle – pustule – bulla – cyst – wheal – scar – fissure – sinus – papule – plaque – nodule – tumor – macule – patch – erosion – ulcer.

Ø Oral condition affecting infants and children:

Congenital epulis - melanotic neuroectodermal tumor of infancy - dental lamina cyst - natal teeth - eruption cyst - congenital lymphangioma – thrush – parulis - commissural lip pits - paramedian lip pits - cleft lip - cleft palate.

Ø Alterations in teeth:

1. Alterations in tooth morphology:

Microdontia – macrodontia - dens invaginatus - accessory cusps – fusion – germination – twinning – concrescence - palatogingival groove - supernumerary roots - ectopic enamel – dilacerations - bulbous root – hypercementosis – taurodontism – shovel shaped incisor syndrome.

2. Alterations in tooth number:

Hyponontia – ankylosis - ectodermal dysplasia – hyperdontia - cleidocranial dysplasia - gender's syndrome.

3. Alteration in tooth structure:

Enamel hypoplasia (environmental, hereditary) - dentinogenesis imperfect - regional odontodysplasia.

4. Alterations in tooth color:

Intrinsic stain - extrinsic stain.

5. Alterations in tooth position:

Rotated teeth - axial tilting - ectopic eruption - orthodontic tooth movement – transposition – translocation - distal drift – migration - partial eruption - supraeruption.

Ø Acquired defects of teeth:

Attrition – abrasion – abfraction - erosion.

Dental Caries:

Bacterial infection characterized by demineralization and destruction of the organic matrix of teeth.

Classified according to location into fissural and smooth surface caries.

Subdivided according to anatomical location into six classes.

Dental caries sequelae:

Pulpitis → periapical abscess → periapical granuloma → periapical cyst.

Ø Cysts and tumors of the jaws:

1. Cysts:

They are epithelial lined cavities.

- Most common cysts: nasopalatine duct cyst - lateral periodontal cyst - botryoid lateral periodontal cyst - dentigerous cyst - odontogenic keratocyst - buccal bifurcation cyst - traumatic bone cyst.

2. Tumors:

They are mass of proliferative tissues.

- Most common tumors: unicystic ameloblastoma - adenomatoid odontogenic tumor - pindborg tumor - ameloblastic fibro-odontoma - ameloblastic odontoma - ameloblastoma - odontogenic myxoma - central giant cell granuloma.
- Most common normal bony growth: exostosis (mandibular tori - palatal tori - reactive subpontine) - socket sclerosis - idiopathic osteosclerosis - condensing osteitis - periapical cement osseous dysplasia - odontoma.

Ø Disorders of gingiva and periodontium:

1. Periodontal diseases:

a. Plaque: is bacteria and matrix that adheres to the outer tooth surface.

Types: supragingival plaque - subgingival plaque.

b. Calculus: is a mineralized, dead bacteria, with a small amount of mineralized salivary proteins.

Types: supragingival calculus - subgingival calculus.

c. Gingival recession: is the apical shift of gingiva below the cement enamel junction toward the root.

2. Gingivitis:

Inflammation of the gingiva. It requires the presence and maturation of the bacterial plaque.

- Classification: according to the distribution, duration, causes and severity.
- Distribution: general, local, marginal, or papillary.
- Duration: acute or chronic.
- Most common gingivitis based on the cause:
 - a. Gingivitis caused by mouth breathing.
 - b. Acute necrotizing ulcerative gingivitis.
 - c. Actinomycotic gingivitis.
 - d. Focal eruption gingivitis.
 - e. Prophy past gingivitis.

3. Periodontitis:

Inflammation of the periodontium caused by persistent microbial plaque.

- Classification: according to early onset, clinical character and responsiveness to therapy.
- Distribution: general, or local.
- Duration: acute, or chronic.
- Most common periodontitis:
 - a. Mild (early) adult periodontitis.
 - b. Moderate adult periodontitis.
 - c. Advance adult periodontitis.
 - d. Periodontal abscess.

4. Localized gingival lesions:

- a. Pyogenic granuloma.
- b. peripheral giant cell granuloma.
- c. peripheral ossifying fibroma.
- d. irritation fibroma.
- e. peripheral odontogenic fibroma.
- f. desmoplastic fibroma.
- g. gumboil.
- h. pericoronitis.
- i. periodontal abscess.
- j. epulis fissuratum.
- k. Gingival carcinoma.

5. Generalized gingival enlargement:

- a. Fibromatosis gingiva.
- b. Drug- induced gingival overgrowth.
- c. Primary herpetic gingivostomatitis.

6. Endocrine associated gingival enlargement:

- a. Hormonal gingivitis.
- b. Diabetic gingivitis.
- c. Gingival edema of hypothyroidism.

Ø Conditions peculiar to the tongue:

1. Scalloped tongue.
2. Macroglossia.
3. Hairy tongue.
4. Hairy leukoplakia.
5. Geographic tongue.
6. Anemia.
7. Xerostomia.
8. Cyst of Blandin- Nuhn.
9. Median rhomboid glossitis.
10. Granular cell tumor.
11. Lingual thyroid body piercing.

Ø Conditions peculiar to the lip:

1. Actinic cheilosis.
2. Candidal cheilitis.
3. Angular cheilitis.
4. Exfoliative cheilitis.

Nodules of the lip:

1. Mucocele.
2. Accessory salivary gland tumor.
3. Nasolabial cyst.
4. Implantation cyst.
5. Mesenchymal nodules and tumor.

Ø Swellings of the floor of the mouth:

1. Ranula.
2. Salivary duct cyst.
3. Salivary calculi.
4. Mucocele.

Ø Swellings of the palate:

1. Palatal torus.
2. Lipoma.
3. Nasopalatine duct cyst.
4. Periapical abscess.
5. Periodontal abscess.
6. Lymphoid hyperplasia.
7. Primary lymphoma of the palate.
8. Swelling due to salivary gland lesions.

Ø Swellings of the face:

1. Odontogenic infections: oral infections.
2. Warthin tumor: benign salivary gland tumor.
3. Sjogren's syndrome: chronic autoimmune disease.
4. Cushing disease and syndrome: persistent elevation of cortisol blood level.
5. Masseter hypertrophy: as a result of chronic muscle activity.
6. Neurofibromatosis: autosomal dominant disease.
7. Cystic hygroma: hamartoma of lymphoid vessels.
8. Ewing's sarcoma: malignant tumor derived from stem mesenchymal cells.

Ø Conditions peculiar to the face:

1. Angioedema: Hypersensitivity reaction characterized by the accumulation of fluid within the facial tissue.
2. Emphysema: Abnormal presence of air in tissue.
3. Postoperative bleeding: result of trauma or surgery of the oral soft tissue.
4. Bell's palsy: unilateral paralysis of the 7th cranial nerve.

Ø Spontaneous gingival bleeding:

1. Leukemic gingivitis: malignant condition characterized by overproduction of leukocytes.
2. Agranulocytosis: decrease of circulating polymorphonuclear neutrophils.
3. Thrombocytopathic and thrombocytopenic purpura: a decrease in the number of circulating platelets.

Ø White lesions:

1. Fordyce's granules.
2. Linea alba buccalis.
3. Leukoedema.
4. Morsicatio buccarum.
5. White sponge nevus.
6. Traumatic white lesions.
7. Leukoplakia.
8. Proliferative verrucous leukoplakia.

Tobacco-associated white lesions:

1. Cigarette keratosis.
2. Nicotine stomatitis.
3. Snuff keratosis.
4. Verrucous carcinoma.

Ø Red lesions:

1. Purpura.
2. petechiae.
3. Ecchymosis.
4. Hematomas.
5. Varix.
6. Thrombus.
7. Hereditary hemorrhagic telangiectasia.
8. Sturge- weber angiomatosis.
9. Erythroplakia.
10. Squamous cell carcinoma.

Ø Red and red white lesions:

1. Lichen planus.
2. Electrogalvanic white lesion.
3. Lupus erythematosus.
4. Lichenoid and lupuslike drug eruption.
5. Acute pseudomembranous candidiasis.
6. Acute atrophic candidiasis.
7. Angular cheilitis.
8. Chronic atrophic candidiasis.

Ø Pigmented lesions:

1. Oral melanotic macule.
2. Nevus.
3. Melanoma.
4. Peutz- jeghers syndrome.
5. Addison's disease.
6. Heavy metal pigmentation.

Ø Nodules:

1. Retrocuspid papilla: a growth on the lingual surface of the attached gingival of the mandibular cuspids.
2. Oral lymphoepithelial cyst: arises of entrapped epithelium in lymphoid tissue.
3. Tori, exostosis and osteoma.
4. Irritation fibroma: common benign hyperplasia result of chronic irritaion.
5. Giant cell fibroma: a variant of irritation fibroma.
6. Lipoma: common benign dermal tumor .
7. Lipofibroma: benign intraoral neoplasm of mixed origin.
8. Traumatic neuroma: benign tumor of neural tissue.
9. Neurofibroma: neoplastic proliferation of peripheral nerve.
10. Oral squamous papilloma: common benign epithelial neoplasm.
11. Verruca vulgaris: common skin wart.
12. Focal epithelial hyperplasia: a virus induced disease.
13. Condyloma acuminatum: is a papillomatous growth.
14. Lymphangioma: benign hamartoma of lymphatic channels

15. Primary herpetic gingivostomatitis: caused by herpes simplex virus.
16. Recurrent herpes simplex.
17. Herpangina: caused by A and B coxsackie viruses.

Ø Vesiculobullous lesions:

1. Varicella (Chickenpox): herpes zoster virus infection.
2. Herpes zoster (shingles): recurrent infection of chickenpox.
3. Hand- food- and mouth disease: caused by many coxsackie A and B viruses.
4. Allergic reactions: localized anaphylaxis - generalized anaphylaxis - allergic stomatitis – angioedema - delayed hypersensitivity and contact stomatitis.
5. Plasma cell gingivitis.
6. Erythema multiforme.
7. Stevens- Johnson Syndrome.
8. Toxic epidermal necrolysis.
9. Pemphigus vulgaris.
10. Pemphigoid.

Ø Ulcerative lesions:

1. Traumatic ulcer.
2. Aphthous stomatitis.
3. Herpetiform ulceration.
4. Behcet's syndrome.
5. Granulomatous ulcer.
6. Squamous cell carcinoma.
7. Chemotherapeutic ulcer.

Ø Sexually related and sexually transmissible conditions:

1. Traumatic condition.
2. Sexually transmitted pharyngitis.
3. Infectious mononucleosis.
4. Syphilis.
5. HIV infection and AIDS.