

SYLLABUS

COURSE: DENF 3701 Oral and Maxillofacial Pathology I
SEMESTER: Fall
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GOAL

Oral and Maxillofacial Pathology is the dental specialty that deals with the wide variety of diseases that affect the oral and maxillofacial area. The diagnosis and treatment of these diseases comprises an essential part of the practice of dentistry. The goal of course DENF 3701 Oral and Maxillofacial Pathology I is to provide you with the knowledge you will need to identify and manage these diseases in your own practice.

A complete understanding of the pathologic principles presented in course DENF 2701 General Pathology is essential to master the material in DENF 3701 Oral and Maxillofacial Pathology I. Please review these principles before you begin your study of oral and maxillofacial pathology.

This course will be presented in a lecture format during the fall semester, and will include the following topics which correspond to the first eleven chapters in the required textbook, *Oral and Maxillofacial Pathology*:

- 1) Developmental Defects and Cysts
- 2) Abnormalities of Teeth
- 3) Pulpal and Periapical Diseases
- 4) Periodontal Diseases
- 5) Infectious Diseases
- 6) Physical and Chemical Injuries
- 7) Allergies and Immunologic Diseases
- 8) Epithelial Pathology
- 9) Salivary Gland Pathology

Course DENF 3701 Oral and Maxillofacial Pathology I is a prerequisite for course DENS 3702 Oral and Maxillofacial Pathology II which will be given during the spring semester.

OBJECTIVES

I. DEVELOPMENTAL DEFECTS AND CYSTS

1. Describe the development of cleft lips.
2. Describe the development of the cleft palate.
 - 2.1 Describe the incidence of cleft lip or palate. (The ratio by Davis is the accepted ratio in this country).
 - 2.2 List the clinical features of the cleft palate.
3. Describe the clinical features of congenital lip pits.
 - 3.1 Describe the clinical features of commissural pits and fistulas.
4. Describe the clinical features of double lip.
5. Describe the clinical features of Fordyce granules.
 - 5.1 Cite the percentage of the population in which Fordyce granules can be found.
6. Describe the clinical features of leukoedema.
7. Contrast microglossia and aglossia.
8. Differentiate between congenital and secondary macroglossia.
 - 8.1 Describe the clinical effects of macroglossia.
9. Differentiate between partial and complete ankyglossia.
10. Describe the clinical features of the lingual thyroid.
 - 10.1 Discuss the use of radioactive iodine-131 in the diagnosis of a lingual thyroid.
11. Describe the clinical features of fissured tongue.
 - 11.1 Cite the percentage of the population in which fissured tongues are found.
12. Describe the clinical features and etiology of hairy tongue.
13. Describe the clinical features of lingual varicosities.
14. Describe the clinical features of lateral soft palate fistulas.
15. Describe the clinical and radiographic features of coronoid hyperplasia.
16. Describe the clinical and radiographic features of condylar hyperplasia.
17. Describe the clinical and radiographic features of condylar hypoplasia.
18. Describe the clinical and radiographic features of bifid condyle.

19. Describe the clinical radiographic and histopathologic features of exostoses.
20. Describe the clinical, radiographic, and histopathologic features of torus palatinus.
21. Describe the clinical, radiographic, and histopathologic features of torus mandibularis.
22. Describe the clinical and radiographic features of Eagle syndrome.
23. Describe the radiographic features of the developmental lingual mandibular salivary gland depression (Stafne defect).
24. Describe the clinical and histopathologic features of the palatal cyst of the newborn.
25. Describe the usual location of the nasoalveolar (nasolabial) cyst.
 - 25.1 Describe from which embryonic process the nasoalveolar cyst is presumed to arise.
26. Describe the usual location of the globulomaxillary cyst.
 - 26.1 State some of the findings that support the supposition that the globulomaxillary cyst is odontogenic in origin.
 - 26.2 Give the characteristic radiographic features of a globulomaxillary cyst.
27. Describe the radiographic features of the nasopalatine duct cyst.
 - 27.1 Describe the histology of the nasopalatine duct cyst.
 - 27.2 Describe the treatment of the nasopalatine duct cyst.
 - 27.3 Describe the soft tissue variant of this entity
28. Describe the clinical features of the median palatal cyst.
29. State the various theories for the origin of the median mandibular cyst.
 - 29.1 Describe the clinical features of a median mandibular cyst.
30. Describe the clinical and histopathologic features of the epidermoid cyst of the skin.
31. Describe the clinical and histopathologic features of the dermoid cyst.
32. Describe the usual clinical features of the thyroglossal tract (duct) cyst.
 - 32.1 Describe the histopathologic features of the thyroglossal tract cyst.
33. Recall that the benign cervical lympho-epithelial cyst arises from epithelium entrapped in cervical lymph nodes and know some of the other theories of the origin of this cyst.
 - 33.1 State the clinical features of the benign cervical lymphoepithelial cyst.
 - 33.2 Describe the histopathologic features of the benign cervical lymphoepithelial cyst.
34. Describe the clinical and histopathologic features of the oral lymphoepithelial cyst.
35. Describe the clinical and radiographic features of hemihyperplasia.

36. Describe the clinical and radiographic features of progressive hemifacial atrophy (Romberg syndrome).
37. Describe the clinical and radiographic features of craniofacial dysostosis (Crouzon syndrome).
38. Describe the clinical and radiographic features of acrocephalosyndactyly (Apert syndrome).
39. Describe the clinical and radiographic features of mandibulofacial dysostosis (Treacher Collins syndrome).

II. ABNORMALITIES OF TEETH

1. Contrast the hereditary and environmental types of enamel hypoplasia.
 - 1.1 List the eight major factors that can cause environmental enamel hypoplasia.
 - 1.2 Describe hypoplasia due to nutritional deficiency and exanthematous fever.
 - 1.3 Describe enamel hypoplasia due to congenital syphilis.
 - 1.4 List the conditions which make up Hutchinson's triad.
 - 1.5 Describe hypoplasia due to birth defects.
 - 1.6 Describe enamel hypoplasia due to local infection or trauma.
 - 1.7 Describe how Turner's teeth occur.
 - 1.8 Describe enamel hypoplasia caused by fluoride.
 - 1.9 Describe the clinical features caused by ingestion of increasing levels of fluoride.
2. Define attrition and state the location where it occurs.
 - 2.1 State if attrition is physiologic or pathologic.
 - 2.2 Describe the first manifestation of attrition you expect to see in the oral cavity.
 - 2.3 State why the dental arch may shorten in length due to attrition.
 - 2.4 Describe how teeth which are affected by attrition remain vital.
3. Define abrasion.
 - 3.1 State the two most common causes of abrasion.
 - 3.2 Describe the usual location and the characteristic shape of toothbrush and dentifrice abrasion.
 - 3.3 List some of the habits or occupations that can cause less common forms of abrasion.
 - 3.4 Describe how teeth affected by abrasion remain vital.
 - 3.5 Discuss how abrasion differs from abfraction.
4. Define erosion.
 - 4.1 Describe how teeth affected with erosion remain vital.
 - 4.2 Describe some of the usual causes of erosion.
 - 4.3 Describe the condition anorexia nervosa.
 - 4.4 State where the erosion which occurs secondary to anorexia nervosa occurs in the oral cavity.
 - 4.5 Know that perimolysis is another term for the erosion caused by anorexia nervosa.
 - 4.6 Briefly describe some of the industrial causes of dental erosion.
5. Differentiate between internal and external resorption.
 - 5.1 Describe the radiographic features of internal and external resorption.

- 5.2 State the chief causes for internal and external resorption.
- 6. State the approximate percentage of people over twenty years of age with impacted teeth.
- 7. Differentiate between ankylosed and submerged teeth.
- 8. Compare the two types of hypodontia.
 - 8.1 State the condition frequently associated with anodontia.
 - 8.2 Cite the frequency of hypodontia.
 - 8.3 List the most commonly missing permanent teeth in order of frequency.
- 9. Define hyperdontia or supernumerary teeth.
 - 9.1 Cite the frequency, gender and ethnic predilection of hyperdontia.
 - 9.2 Differentiate among the various types of hyperdontia, including mesiodens, distomolar and paramolar.
 - 9.3 List the most common teeth to demonstrate hyperdontia in order of frequency.
- 10. Define microdontia.
 - 10.1 Compare true generalized, relative generalized and single tooth microdontia.
 - 10.2 Identify the most common form of localized microdontia.
- 11. Define macrodontia.
 - 11.1 Compare true generalized, relative generalized and single tooth macrodontia.
 - 11.2 Compare macrodontia of a single tooth with fusion of a tooth.
- 12. Describe gemination.
- 13. Describe fusion.
 - 13.1 Name the dental tissue that is always confluent in cases of true fusion.
 - 13.2 State if fusion is more common in deciduous or permanent dentition.
- 14. Define concrescence.
 - 14.1 Name the dental tissue that becomes fused in concrescence.
- 15. Describe the usual location and structure of a talon cusp.
- 16. Describe dens invaginatus (dens in dente).
 - 16.1 State the most frequent tooth involved in dens in dente.
 - 16.2 Indicate if the condition "dens in dente" can be bilateral.
 - 16.3 State why dens in dente must be recognized early.
 - 16.4 Name the diagnostic aid for early recognition of dens in dente.
 - 16.5 Distinguish between dens invaginatus and dens evaginatus
- 17. Describe an enameloma.
- 18. Define the term taurodontism.
 - 18.1 Describe the genetic control and familial nature of taurodontism.
 - 18.2 State in which dentition taurodontism occurs most frequently.

- 18.3 Describe the radiographic features of taurodontism.
- 19. Define hypercementosis (cementum hyperplasia).
 - 19.1 Describe the etiology of hypercementosis.
 - 19.2 Describe the clinical features of hypercementosis.
 - 19.3 Describe the radiographic features of hypercementosis.
- 20. Describe dilaceration.
- 21. Describe the condition of supernumerary roots.
 - 21.1 State why knowledge of supernumerary roots is of clinical importance.
- 22. Contrast the hypoplastic, hypocalcified and hypomaturational types of amelogenesis imperfecta.
 - 22.1 State which germ layer defect causes amelogenesis imperfecta.
 - 22.2 Describe the radiographic findings in amelogenesis imperfecta.
- 23. Describe which germ layer is associated with dentinogenesis imperfecta.
 - 23.1 Describe another hereditary mesodermal defect that may be associated with dentinogenesis imperfecta.
 - 23.2 Describe another hereditary mesodermal defect that may be associated with osteogenesis imperfecta.
 - 23.3 Describe dentinogenesis imperfecta that is associated with osteogenesis imperfecta.
 - 23.4 Describe the usual radiographic findings in dentinogenesis imperfecta.
 - 23.5 Describe the pathognomonic appearance of teeth radiographically in dentinogenesis imperfecta.
 - 23.6 Describe the more prominent histopathologic features of dentinogenesis imperfecta.
- 24. Describe the features of dentin dysplasia.
 - 24.1 Describe the clinical features in dentin dysplasia.
 - 24.2 Describe the characteristic histologic appearance of dentin dysplasia.
- 25. Describe regional odontodysplasia.
 - 25.1 Describe the clinical and radiographic features of regional odontodysplasia.

III. PULPAL AND PERIAPICAL DISEASES

- 1. Define pulpitis.
 - 1.1 Describe reversible pulpitis.
 - 1.2 Describe irreversible pulpitis.
 - 1.3 Describe chronic hyperplastic pulpitis.
- 2. Describe secondary dentin with emphasis on its:
 - 2.1 etiology
 - 2.2 clinical features
 - 2.3 radiographic features
 - 2.4 histopathologic features

3. Describe pulpal calcifications with emphasis on their:
 - 3.1 etiology
 - 3.2 clinical features
 - 3.3 radiographic features
 - 3.4 histopathologic features
 - 3.5 treatment and prognosis

4. Describe periapical granuloma (chronic apical periodontitis) with emphasis on its:
 - 4.1 etiology
 - 4.2 clinical features
 - 4.3 radiographic features
 - 4.4 histopathologic features
 - 4.5 treatment and prognosis

5. Describe periapical cyst (radicular cyst) with emphasis on its:
 - 5.1 etiology
 - 5.2 clinical features
 - 5.3 radiographic features
 - 5.4 histopathologic features
 - 5.5 treatment and prognosis

6. Describe periapical abscess with emphasis on its:
 - 6.1 etiology
 - 6.2 clinical features
 - 6.3 radiographic features
 - 6.4 histopathologic features
 - 6.5 treatment and prognosis

7. Describe cellulitis with emphasis on its:
 - 7.1 etiology
 - 7.2 clinical features
 - 7.3 serious patterns, including Ludwig's angina and cavernous sinus thrombosis
 - 7.4 treatment and prognosis

8. Describe acute and chronic osteomyelitis with emphasis on their:
 - 8.1 etiology
 - 8.2 clinical features
 - 8.3 radiographic features
 - 8.4 histopathologic features
 - 8.5 treatment and prognosis

9. Describe diffuse sclerosing osteomyelitis with emphasis on its:
 - 9.1 etiology
 - 9.2 clinical features
 - 9.3 radiographic features
 - 9.4 histopathologic features
 - 9.5 treatment and prognosis

10. Describe condensing osteitis with emphasis on its:
 - 10.1 etiology
 - 10.2 clinical features
 - 10.3 radiographic features
 - 10.4 treatment and prognosis

11. Describe osteomyelitis with proliferative periostitis with emphasis on its:
 - 11.1 etiology
 - 11.2 clinical features
 - 11.3 radiographic features
 - 11.4 histopathologic features
 - 11.5 treatment and prognosis

12. Describe alveolar osteitis with emphasis on its:
 - 12.1 etiology
 - 12.2 clinical features
 - 12.3 treatment and prognosis

IV. PERIODONTAL DISEASES

1. Describe gingivitis with emphasis on its:
 - 1.1 etiology
 - 1.2 clinical features
 - 1.3 histopathologic feature
 - 1.4 treatment and prognosis

2. Describe necrotizing ulcerative gingivitis with emphasis on its:
 - 2.1 etiology
 - 2.2 clinical features
 - 2.3 histopathologic features
 - 2.4 treatment and prognosis

3. Describe plasma cell gingivitis with emphasis on its:
 - 3.1 etiology
 - 3.2 clinical features
 - 3.2 histopathologic features
 - 3.4 treatment and prognosis

4. Describe granulomatous gingivitis with emphasis on its:
 - 4.1 etiology
 - 4.2 clinical features
 - 4.3 histopathologic features
 - 4.4 treatment and prognosis

5. Describe drug-related gingival hyperplasia with emphasis on its:
 - 5.1 etiology
 - 5.2 clinical features
 - 5.3 histopathologic features

- 5.4 treatment and prognosis
- 6. Describe gingival fibromatosis with emphasis on its:
 - 6.1 etiology
 - 6.2 clinical features
 - 6.3 histopathologic features
 - 6.4 treatment and prognosis
- 7. Describe periodontitis with emphasis on its:
 - 7.1 etiology
 - 7.2 clinical features
 - 7.3 radiographic features
 - 7.4 histopathologic features
 - 7.5 treatment and prognosis
- 8. Describe aggressive periodontitis with emphasis on its:
 - 8.1 etiology
 - 8.2 clinical features
 - 8.3 radiographic features
 - 8.4 histopathologic features
 - 8.5 treatment and prognosis
- 9. Describe Papillon-Lefevre syndrome with emphasis on its:
 - 9.1 etiology
 - 9.2 clinical features
 - 9.3 radiographic features
 - 9.4 histopathologic features
 - 9.5 treatment and prognosis

V. INFECTIOUS DISEASES

Bacterial Infections

- 1. Describe impetigo with emphasis on:
 - 1.1 cause
 - 1.2 mode of transmission
 - 1.3 clinical features
 - 1.4 diagnosis
 - 1.5 treatment and prognosis
- 2. Describe erysipelas with emphasis on:
 - 2.1 cause
 - 2.2 mode of transmission
 - 2.3 clinical features
 - 2.4 diagnosis
 - 2.5 treatment and prognosis
- 3. Describe streptococcal tonsillitis and pharyngitis with emphasis on:
 - 3.1 cause
 - 3.2 mode of transmission

- 3.3 clinical features
- 3.4 diagnosis
- 3.5 treatment and prognosis
- 4. Describe syphilis with emphasis on:
 - 4.1 cause
 - 4.2 mode of transmission
 - 4.3 stages of the disease
 - 4.4 congenital disease
 - 4.5 clinical features
 - 4.6 diagnosis
 - 4.7 treatment and prognosis
- 5. Describe gonorrhoea with emphasis on:
 - 5.1 cause
 - 5.2 mode of transmission
 - 5.3 clinical features
 - 5.4 diagnosis
 - 5.5 treatment and prognosis
- 6. Describe tuberculosis with emphasis on:
 - 6.1 cause
 - 6.2 mode of transmission
 - 6.3 stages of disease
 - 6.4 clinical features
 - 6.5 radiographic features
 - 6.6 histopathologic findings
 - 6.7 diagnosis
 - 6.8 treatment and prognosis
- 7. Describe noma with emphasis on:
 - 7.1 cause
 - 7.2 predisposing factors
 - 7.3 clinical features
 - 7.4 diagnosis
 - 7.5 treatment and prognosis
- 8. Describe actinomycosis with emphasis on:
 - 8.1 cause
 - 8.2 source of infection
 - 8.3 clinical features
 - 8.4 histopathologic features
 - 8.5 diagnosis
 - 8.6 treatment and prognosis
- 9. Describe cat-scratch disease with emphasis on:
 - 9.1 cause
 - 9.2 mode of transmission
 - 9.3 clinical features
 - 9.4 histopathologic diagnosis
 - 9.5 treatment and prognosis

10. Describe sinusitis with emphasis with:
- 10.1 cause
 - 10.2 predisposing factors
 - 10.3 clinical features
 - 10.4 radiographic features
 - 10.5 treatment and prognosis

Fungal Infections

11. Describe candidiasis with emphasis on:
- 11.1 cause
 - 11.2 predisposing factors
 - 11.3 clinical features of the various types
 - 11.4 histopathologic features
 - 11.5 diagnosis
 - 11.6 treatment and prognosis
12. Describe histoplasmosis with emphasis on:
- 12.1 cause
 - 12.2 geographic predilection
 - 12.3 stages of the disease
 - 12.4 clinical features
 - 12.5 radiographic features
 - 12.6 histopathologic features
 - 12.7 diagnosis
 - 12.8 treatment and prognosis
13. Describe zygomycosis with emphasis on:
- 13.1 cause
 - 13.2 predisposing factors
 - 13.3 clinical features
 - 13.4 radiographic features
 - 13.5 histopathologic features
 - 13.6 diagnosis
 - 13.7 treatment and prognosis
14. Describe aspergillosis with emphasis on:
- 14.1 cause
 - 14.2 source of the fungus
 - 14.3 clinical features
 - 14.4 histopathologic features
 - 14.5 diagnosis
 - 14.6 treatment and prognosis

Viral Infections

15. Describe herpes simplex infection with emphasis on:
- 15.1 cause
 - 15.2 mode of transmission

- 15.3 forms of the disease
 - 15.4 incidence
 - 15.5 predisposing factors
 - 15.6 clinical features of the various forms
 - 15.7 histopathologic features
 - 15.8 diagnosis
 - 15.9 treatment and prognosis
16. Describe varicella (chickenpox) with emphasis on:
- 16.1 cause
 - 16.2 mode of transmission
 - 16.3 forms of disease
 - 16.4 incubation period
 - 16.5 clinical features
 - 16.6 histopathologic features
 - 16.7 diagnosis
 - 16.8 treatment and prognosis
17. Describe herpes zoster (shingles) with emphasis on:
- 17.1 cause
 - 17.2 predisposing factors
 - 17.3 clinical features
 - 17.4 histopathologic features
 - 17.5 diagnosis
 - 17.6 treatment and prognosis
18. Describe infectious mononucleosis with emphasis on:
- 18.1 cause
 - 18.2 mode of transmission
 - 18.3 incidence
 - 18.4 clinical factors
 - 18.5 diagnosis
 - 18.6 treatment and prognosis
19. Describe cytomegalovirus with emphasis on:
- 19.1 cause
 - 19.2 mode of transmission
 - 19.3 incidence
 - 19.4 clinical features
 - 19.5 histopathologic features
 - 19.6 diagnosis
 - 19.7 treatment and prognosis
20. Describe herpangina with emphasis on:
- 20.1 cause
 - 20.2 mode of transmission
 - 20.3 clinical features
 - 20.4 diagnosis
 - 20.5 treatment and prognosis
21. Describe hand-foot-mouth disease with emphasis on:

- 21.1 cause
 - 21.2 mode of transmission
 - 21.3 clinical features
 - 21.4 diagnosis
 - 21.5 treatment and prognosis
22. Describe acute lymphonodular pharyngitis with emphasis on:
- 22.1 cause
 - 22.2 mode of transmission
 - 22.3 clinical features
 - 22.4 diagnosis
 - 22.5 treatment and prognosis
23. Describe rubeola (measles) with emphasis on:
- 23.1 cause
 - 23.2 mode of transmission
 - 23.3 clinical features
 - 23.4 diagnosis
 - 23.5 treatment and prognosis
24. Describe rubella (German Measles) with emphasis on:
- 24.1 cause
 - 24.2 mode of transmission
 - 24.3 vaccine contraindications
 - 24.4 clinical features
 - 24.5 diagnosis
 - 24.6 treatment and prognosis
25. Describe mumps (epidemic parotitis) with emphasis on:
- 25.1 cause
 - 25.2 mode of transmission
 - 25.3 clinical features
 - 25.4 diagnosis
 - 25.5 treatment and prognosis

Human Immunodeficiency Virus

26. Describe the epidemiology of HIV infection with emphasis on:
- 26.1 cause
 - 26.2 incidence
 - 26.3 mode of transmission
 - 26.4 pathogenesis
 - 26.5 clinical features
 - 26.6 diagnosis
 - 26.7 treatment
 - 26.8 prognosis
27. Describe the head and neck manifestations of HIV disease with emphasis on the clinical features of:
- 27.1 persistent generalized lymphadenopathy

- 27.2 HIV-associated gingival and periodontal disease
- 27.3 human herpesvirus infections
- 27.4 hairy leukoplakia
- 27.5 Kaposi's sarcoma
- 27.6 aphthous ulcerations
- 27.7 human papillomavirus infection
- 27.8 histoplasmosis
- 27.9 thrombocytopenia
- 27.10 HIV-associated salivary gland disease
- 27.11 hyperpigmentation
- 27.12 lymphoma

VI. PHYSICAL AND CHEMICAL INJURIES

1. Describe linea alba with emphasis on its:
 - 1.1 etiology
 - 1.2 clinical features
 - 1.3 histopathologic features
 - 1.4 treatment and prognosis

2. Describe morsicatio buccarum with emphasis on its:
 - 2.1 etiology
 - 2.2 clinical features
 - 2.3 histopathologic features
 - 2.4 treatment and prognosis

3. Describe traumatic ulcerations and granulomas with emphasis on their:
 - 3.1 etiology
 - 3.2 clinical features
 - 3.3 histopathologic features
 - 3.4 treatment and prognosis

4. Describe electrical and thermal burns with emphasis on their:
 - 4.1 etiology
 - 4.2 clinical features
 - 4.3 treatment and prognosis

5. Describe chemical injuries with emphasis on their:
 - 5.1 etiology
 - 5.2 clinical features
 - 5.3 histopathologic features
 - 5.4 treatment and prognosis

6. Describe complications of antineoplastic therapy with emphasis on their:
 - 6.1 etiology
 - 6.2 clinical features
 - 6.3 treatment and prognosis

7. Describe anesthetic necrosis with emphasis on its:

- 7.1 etiology
 - 7.2 clinical features
 - 7.3 treatment and prognosis
8. Describe exfoliative cheilitis with emphasis on its:
- 8.1 etiology
 - 8.2 clinical features
 - 8.3 treatment and prognosis
9. Describe submucosal hemorrhage with emphasis on its:
- 9.1 etiology
 - 9.2 clinical features
 - 9.3 treatment and prognosis
10. Describe oral trauma from sexual practices with emphasis on its:
- 10.1 etiology
 - 10.2 clinical features
 - 10.3 treatment and prognosis
11. Describe localized exogenous pigmentation with emphasis on its:
- 11.1 etiology
 - 11.2 clinical features
 - 11.3 radiographic features
 - 11.4 histopathologic features
 - 11.5 treatment and prognosis
12. Describe systemic metallic intoxication with emphasis on its:
- 12.1 etiology
 - 12.2 clinical features
 - 12.3 treatment and prognosis
13. Describe smoker's melanosis with emphasis on its:
- 13.1 etiology
 - 13.2 clinical features
 - 13.3 histopathologic features
 - 13.4 treatment and prognosis
14. Describe drug-related discolorations of oral mucosa with emphasis on their:
- 14.1 etiology
 - 14.2 clinical features
 - 14.3 treatment and prognosis
15. Describe traumatic osseous and chondromatous metaplasia with emphasis on their:
- 15.1 etiology
 - 15.2 clinical features
 - 15.3 radiographic features
 - 15.4 histopathologic features
 - 15.5 treatment and prognosis

16. Describe antral pseudocyst with emphasis on its:
 - 16.1 etiology
 - 16.2 clinical features
 - 16.3 radiographic features
 - 16.4 treatment and prognosis

17. Describe cervicofacial emphysema with emphasis on its:
 - 17.1 etiology
 - 17.2 clinical features
 - 17.3 radiographic features
 - 17.4 treatment and prognosis

18. Describe myospherulosis with emphasis on its:
 - 18.1 etiology
 - 18.2 clinical features
 - 18.3 radiographic features
 - 18.4 histopathologic features
 - 18.5 treatment and prognosis

VII. ALLERGIES AND IMMUNOLOGIC DISEASES

1. Describe recurrent aphthous stomatitis (recurrent aphthous ulcer, RAU).
 - 1.1 State the most likely primary cause.
 - 1.2 List various other causative factors (subgroups).
 - 1.3 Differentiate minor aphthae, major aphthae and herpetiform aphthae
 - 1.4 Recognize the non-specific histopathologic features.
 - 1.5 State the preferred treatment.

2. Define Behcet's syndrome.
 - 2.1 Compare the clinical manifestations with RAU
 - 2.2 State four specific diagnostic criteria for Behcet's syndrome.
 - 2.3 Compare the treatment for Behcet's syndrome with RAU.

3. Describe sarcoidosis.
 - 3.1 List the clinical symptoms and organs/tissues affected.
 - 3.2 State the age range and racial predilection for affected patients.
 - 3.3 Define Heerfordt's syndrome.
 - 3.4 Recognize the histopathologic features.
 - 3.5 State the recommended treatment and prognosis.

4. Describe orofacial granulomatosis.
 - 4.1 Define Melkersson-Rosenthal syndrome.
 - 4.2 Define cheilitis granulomatosa.
 - 4.3 Identify intraoral sites of involvement.
 - 4.4 List three granulomatous diseases that should be excluded before the diagnosis of orofacial granulomatosis is made.

5. Define Wegener's granulomatosis.

- 5.1 List the organs and tissues affected.
- 5.2 Describe the oral lesions ("strawberry gingivitis" and oral ulcers).
- 5.3 State the treatment and prognosis.

- 6. Define stomatitis medicamentosa.
 - 6.1 List four patterns of mucosal reactions to drugs.
 - 6.2 Define erythema multiforme.

- 7. Define stomatitis venenata (allergic contact stomatitis).
 - 7.1 List several products or agents that are known to cause allergic contact stomatitis.
 - 7.2 Describe contact stomatitis due to artificial cinnamon (oral tissues affected).
 - 7.3 Recognize "contact lichenoid reaction to amalgam."

- 8. Describe angioedema (angioneurotic edema).
 - 8.1 Contrast the mechanisms involved in the various forms of angioedema, e.g. drug-related, hereditary, acquired.
 - 8.2 List the anatomic sites of involvement.
 - 8.3 State the usual duration of the tissue swellings.
 - 8.4 State the treatment for angioedema

VIII. EPITHELIAL PATHOLOGY

- 1. Describe squamous papilloma.
 - 1.1 Define squamous papilloma.
 - 1.2 State the clinical appearance.
 - 1.3 List the most common oral sites.
 - 1.4 State the histopathologic features.
 - 1.5 State the treatment.
 - 1.6 Identify the associated virus.
 - 1.7 List two other papillary lesions of the oral mucosa.

- 2. Define the sinonasal papilloma.
 - 2.1 List three proposed causes.
 - 2.2 List three types.

- 3. Define the verruca vulgaris.
 - 3.1 Identify the associated virus.
 - 3.2 List the most common extraoral and intraoral sites.
 - 3.3 Describe the appropriate treatment.

- 4. Define condyloma acuinatum.
 - 4.1 Identify the associated virus and mode of transmission.
 - 4.2 List the most common extraoral and intraoral sites.
 - 4.3 Describe the appropriate treatment.

- 5. Define focal epithelial hyperplasia (Heck's disease).
 - 5.1 Identify the associated virus.

- 5.2 List the most common intraoral sites.
6. Describe the verruciform xanthoma.
 - 6.1 List the most common intraoral sites.
 - 6.2 List three other mucosal lesions that may have similar clinical appearances.
7. Describe the oral melanotic macule (focal melanosis).
 - 7.1 Recognize the histopathologic features.
 - 7.2 List the most common oral sites.
 - 7.3 Describe the appropriate treatment.
8. Describe acquired melanocytic nevi.
 - 8.1 State the three stages of acquired melanocytic nevi.
 - 8.2 List the most common intraoral sites for pigmented nevi.
 - 8.3 Recognize the differentiating histopathologic features of junctional nevus, compound nevus and intramucosal nevus.
 - 8.4 State the recommended treatment of an intraoral pigmented nevus.
9. Describe the blue nevus.
 - 9.1 State the reason for the "blue" color.
 - 9.2 Describe the appropriate treatment.
10. Describe leukoplakia.
 - 10.1 State the World Health Organization (WHO) definition of leukoplakia.
 - 10.2 List the known etiologic factors.
 - 10.3 Differentiate leukoplakia from candidiasis, leukoedema, and lichen planus.
 - 10.4 Describe the various clinical phases of oral leukoplakia.
 - 10.4 State the appropriate management of oral leukoplakia.
11. Differentiate the following microscopic terms associated with leukoplakia or erythroplakia.
 - 11.1 hyperorthokeratosis
 - 11.2 hyperparakeratosis
 - 11.3 acanthosis
 - 11.4 dysplasia
 - 11.5 carcinoma-in-situ
12. Describe the histopathologic features of dysplasia.
13. Define tobacco pouch keratosis.
 - 13.1 List the most common oral sites.
 - 13.2 State the management of tobacco pouch keratosis.
 - 13.3 Differentiate tobacco pouch keratosis from oral submucous fibrosis.
14. Describe erythroplakia.
 - 14.1 State the expanded definition of erythroplakia.
 - 14.2 Recognize the earliest visible sign of oral squamous cell carcinoma.
 - 14.3 State the recommended treatment for erythroplakia.
15. Describe actinic keratosis and actinic cheilosis.

- 15.1 Identify the most common site of involvement.
16. Describe carcinoma-in-situ.
 - 16.1 State the consequences if the lesion is left untreated.
17. Describe basal cell carcinoma with emphasis on:
 - 17.1 the known etiologic factors
 - 17.2 the clinical appearance and usual location
 - 17.3 the usual age and sex of affected persons
 - 17.4 the treatment and prognosis
18. Describe squamous cell carcinoma.
 - 18.1 Define squamous cell carcinoma.
 - 18.2 Contrast its frequency of occurrence in the oral cavity with other malignant neoplasms.
 - 18.3 List the common oral sites in descending order of frequency.
 - 18.4 List the known etiologic factors.
 - 18.5 State the usual age and sex of affected persons.
 - 18.6 State the metastatic potential of squamous cell carcinoma and the usual metastatic sites.
 - 18.7 Define microscopic grading of squamous cell carcinoma, distinguishing between well-differentiated and poorly-differentiated tumors.
 - 18.8 State the significance of the amount of keratin production by tumor cells and the presence of keratin "pearls" in grading a squamous cell carcinoma.
 - 18.9 Recognize the approximate number of deaths from oral cancer that occur in the U.S. each year.
 - 18.10 Recognize the association of squamous cell carcinoma of the lower lip with sun exposure.
19. Describe the TNM system for the clinical staging of oral carcinoma:
 - 19.1 State the definitions of T1, T2, and T3 based upon the relative size of primary tumors.
 - 19.2 State the significance of N0, N1, N2, and N3 in regards to lymph node involvement.
 - 19.3 State the significance of M0 and M1 in regards to distant metastases.
 - 19.4 State the significance of clinical staging (TNM system) in determining the appropriate treatment for an oral squamous cell carcinoma.
20. Describe verrucous carcinoma.
 - 20.1 Recognize the clinical appearance, and differentiate from papillary palatal hyperplasia and nicotine stomatitis.
 - 20.2 State the usual age and sex of affected persons.
 - 20.3 List the common intraoral sites.
 - 20.4 List the known etiologic factors.
 - 20.5 Contrast the growth characteristics and metastatic potential of verrucous carcinoma with squamous cell carcinoma.
 - 20.6 State the recommended treatment.
21. Describe non-keratinizing squamous cell carcinoma (lymphoepithelioma) of the nasopharynx.
 - 21.1 State the usual anatomic site of the primary tumor.

- 21.2 State the usual age range of affected persons.
- 21.3 State the most common presenting symptom in affected patients.
- 21.4 State the use of radiation as an accepted treatment.
- 22. Describe malignant melanoma.
 - 22.1 List four different types of malignant melanoma.
 - 22.2 Identify the most common oral mucosal sites.
 - 22.3 State the usual age and sex of affected persons.
 - 22.4 List four treatment modalities for malignant melanoma.
 - 22.5 Compare the clinical appearance with other pigmented oral lesions, such as hemangioma or pyogenic granuloma.
- 23. Compare the biologic behavior of the following malignant tumors:
 - 23.1 squamous cell carcinoma of the lip
 - 23.2 squamous cell carcinoma of the tongue
 - 23.3 verrucous carcinoma
 - 23.4 basal cell carcinoma
 - 23.5 malignant melanoma
 - 23.6 non-keratinizing squamous cell carcinoma (lymphoepithelioma)

IX. SALIVARY GLAND PATHOLOGY

- 1. Describe the etiology and pathogenesis of the mucous retention phenomena.
 - 1.1 Describe the clinical features of the mucous retention phenomena.
 - 1.2 Explain why the mucocele is not a true cyst.
 - 1.3 Discuss the treatment and prognosis of the mucous retention phenomena.
- 2. Describe the clinical features of the ranula.
 - 2.1 Describe the histologic features of the ranula.
 - 2.2 Explain why most investigators consider the ranula to be a form of retention cyst.
 - 2.3 Describe the treatment and prognosis of the ranula.
- 3. Describe the clinical features of sialolithiasis.
 - 3.1 List the usual location of sialolithiasis in most common to least common locations.
 - 3.2 Explain the treatment and prognosis of sialolithiasis.
- 4. Describe the most frequent cause of chronic sialadenitis.
 - 4.1 List some other conditions which can cause chronic sialadenitis.
- 5. Describe cheilitis glandularis with emphasis on its:
 - 5.1 etiology
 - 5.2 clinical features
 - 5.3 histopathologic features
 - 5.4 treatment and prognosis
- 6. Define sialorrhea.
- 7. Describe xerostomia with emphasis on its:

- 7.1 etiology
 - 7.2 clinical feature
 - 7.3 treatment and prognosis
8. Describe benign lymphoepithelial lesion with emphasis on its:
- 8.1 etiology
 - 8.2 clinical features
 - 8.3 histopathologic features
 - 8.4 treatment and prognosis
9. Describe the etiology of Sjogren's (Sicca) syndrome.
- 9.1 Describe the clinical features of Sicca syndrome.
 - 9.2 Describe the histopathologic features of the Sicca syndrome.
 - 9.3 Describe the pattern on a sialogram in the Sicca syndrome.
 - 9.4 Explain the treatment and prognosis in the Sicca syndrome.
 - 9.5 Describe the malignant potential present in patients with the Sicca syndrome.
10. Describe necrotizing sialometaplasia with emphasis on its:
- 10.1 etiology
 - 10.2 clinical features
 - 10.3 histopathologic features
 - 10.4 treatment and prognosis
11. Describe pleomorphic adenoma (mixed tumor).
- 11.1 Compare its relative frequency of occurrence with other salivary gland tumors.
 - 11.2 State the usual age range of affected persons.
 - 11.3 State the most common intraoral site.
 - 11.4 State its rate of growth and likelihood of recurrence.
12. Describe monomorphic adenoma.
- 12.1 Compare its clinical and microscopic features with pleomorphic adenoma (mixed tumor).
 - 12.2 State the usual location of the canalicular adenoma.
 - 12.3 State the usual location of the basal cell adenoma
13. Describe papillary cystadenoma lymphomatosum (Warthin's tumor).
- 13.1 State the age and sex of most patients with Warthin's tumor.
 - 13.2 Select the major salivary gland that is the site of the vast majority of these tumors.
14. Describe the oncocytoma.
- 14.1 State the age and sex of most patients with oncocytoma.
 - 14.2 Select the major salivary gland that is the usual site of oncocytoma.
15. Define "carcinoma ex pleomorphic adenoma."
16. Describe adenoid cystic carcinoma (cylindroma).
- 16.1 Identify the most frequent site of occurrence in the oral cavity.

- 16.2 Describe the “Swiss Cheese” microscopic appearance.
- 16.3 State the reason that local pain or facial paralysis are often clinical manifestations.
- 16.4 State the metastatic potential of adenoid cystic carcinoma.
- 17. Define acinic cell carcinoma and identify the cells of origin.
- 18. Describe mucoepidermoid carcinoma.
 - 18.1 State the usual age of affected patients, and the relative frequency of occurrence in children.
 - 18.2 List the most common oral sites.
 - 18.3 List the histopathologic features, noting the two components (mucous cells and epidermoid cells).

RESOURCES

I. Media Resources

A. Printed media

1. Required textbook

Neville, Damm, Allen and Bouquot
Oral and Maxillofacial Pathology, 2nd ed.
Saunders, Philadelphia, 2002

II. Human Resources

Nadarajah Vigneswaran, B.D.S., D.M.D., Dr. Med Dent
Phone: 713-500-4410; Room 3.094G
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Course Director

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STUDY PLAN AND REQUIREMENTS

This course consists of a series of lectures supplemented with handouts and textbook assignments. You should first read the appropriate chapters in the required textbook before attending the lectures. Next, using the objectives as a guide, carefully review the material in the required textbook and handouts. In addition to the scheduled lectures, it is estimated that you will need approximately 60 hours of study to master the material in this course.

DENF 2701 General Pathology and DENS 2702 Systemic Pathology are prerequisites for DENF 3701 Oral and Maxillofacial Pathology I.

DENF 3701 ORAL AND MAXILLOFACIAL PATHOLOGY I 2004 Fall Semester Lecture Schedule

Day/Time: Fridays (10-11:50 am)
Req'd Text: *Oral and Maxillofacial Pathology*

DATE	TOPIC	PRESENTER
Aug 20	Developmental Defects and Cysts <i>Read Chapter 1, Developmental Defects of the Oral and Maxillofacial Region</i>	Vigneswaran
Aug 27	Abnormalities of Teeth <i>Read Chapter 2, Abnormalities of Teeth</i>	Vigneswaran
Sep 3	Abnormalities of Teeth Pulpal and Periapical Diseases <i>Read Chapter 3, Pulpal and Periapical Disease</i>	Vigneswaran
Sep 10	Pulpal and Periapical Diseases	Vigneswaran
Sep 17	Periodontal Diseases <i>Read Chapter 4, Periodontal Disease</i>	Vigneswaran
Sep 24	Periodontal Diseases Physical and Chemical Injuries <i>Read Chapter 8, Physical and Chemical Injuries</i>	Vigneswaran
Oct 1	Physical and Chemical Injuries	Vigneswaran
Oct 8	Mid-term exam	
Oct 15	Infectious Diseases <i>Read Chapter 5, Bacterial Infections</i>	Flaitz
Oct 22	Infectious Diseases <i>Read Chapter 6, Fungal and Protozoal Infections</i>	Flaitz
Oct 29	Infectious Diseases <i>Read Chapter 7, Viral Infections</i>	Flaitz
Nov 5	Allergies and Immunologic Diseases <i>Read Chapter 9, Allergies and Immunologic Diseases</i>	Vigneswaran

DATE	TOPIC	PRESENTER
Nov 12	Allergies and Immunologic Diseases Epithelial Pathology <i>Read Chapter 10, Epithelial Pathology</i>	Vigneswaran
Nov 19	Epithelial Pathology Salivary Gland Pathology <i>Read Chapter 11, Salivary Gland Pathology</i>	Vigneswaran
Nov 26	<i>Thanksgiving Holiday</i>	
Dec 3	Salivary Gland Pathology Course Evaluation	Vigneswaran
Dec 16 10-11:50 am	FINAL EXAMINATION Room 207	Vigneswaran

EVALUATION METHODS

You will be evaluated on the basis of a two-hour, comprehensive final examination (60% of your final grade) and a one-hour, mid-term examination (40% of your final grade). All examinations will consist of multiple-choice questions. In addition, case histories, using clinical and microscopic slides will be included in the examinations.

Please refer to the Fall Semester calendar for dates, times, and locations of the mid-term and final examinations.