**NICOLAE TESTEMIŢANU**

**PI STATE UNIVERSITY OF MEDICINE AND PHARMACY**

**FACULTY OF DENTISTRY**

**DEPARTMENT OF ORO-MAXILLOFACIAL SURGERY**

**AND ORAL IMPLANTOLOGY ARSENIE GUȚAN**

**Teaching guide**

Subject: **Oncology in OMF region**

Type of subject: **Compulsory**

Code of subject: **S.09.O.090**

**5th year, 9th semester**

**Head of Department, dr.hab.in.med.sci., univ.prof Chele Nicolae**

**Study Coordinator, PhD, assoc.prof. Motelica Gabriela**

**Topic No. 1**

**Tumors of the Oral and Maxillofacial Region (OMF)**

**Workplace:** Clinical foundations of the department.

**Objective of the work:** Understanding the fundamental principles of oncology, the essential concepts related to tumor classification, and the clinical and therapeutic characteristics of tumors located in the oral and maxillofacial region.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. International classification of oral and maxillofacial tumors (clinical, anatomical and histological criteria).
2. Clinical features of benign tumors in the oral and maxillofacial region.
3. Clinical features of malignant tumors in the oral and maxillofacial region.
4. Differential diagnosis between benign and malignant tumors.
5. Paraclinical diagnostic methods: biopsy and cytological examination – types, techniques and interpretation of results.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 2**

**Cysts of the jaws. Odontogenic cysts of the jawbones.**

**Workplace:** Clinical foundations of the department.

**Objective of the work:** to acquire knowledge about the clinical presentation, diagnosis, and treatment of jaw cysts.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. Etiology and pathogenesis of jawbone cysts.
2. Classification of cysts (WHO).
3. Developmental odontogenic cysts: general overview.
   * Odontogenic keratocyst: clinical features, diagnosis, differential diagnosis, and treatment.
   * Follicular (dentigerous) cyst: clinical features, diagnosis, differential diagnosis, and treatment
   * Dentigerous cyst: clinical features, diagnosis, differential diagnosis, and treatment
   * Orthokeratinized odontogenic cyst: clinical features, diagnosis, differential diagnosis, and treatment
   * Lateral periodontal cyst and botryoid odontogenic cyst: clinical features, diagnosis, differential diagnosis, and treatment
   * Calcifying odontogenic cyst: clinical features, diagnosis, differential diagnosis, and treatment
   * Glandular odontogenic cyst: clinical features, diagnosis, differential diagnosis, and treatment
4. Inflammatory odontogenic cysts: general overview.

* residual cyst. Clinical presentation, diagnosis, differential diagnosis, and treatment.
* radicular cyst. Clinical presentation, diagnosis, differential diagnosis, and treatment.

### BIBLIOGRAPHY:

1. Lecture materials.
2. <https://www.who.int/standards/classifications/classification-of-diseases>

**Topic No. 3**

**Cysts of the jaws. Nonodontogenic cysts and pseudocysts of the jawbones.**

**Workplace:** Clinical Foundations of the Department.

**Objective of the work:** to acquire knowledge about the clinical picture, diagnosis, and treatment of congenital cysts and fistulas in the oral and maxillofacial region.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. Developmental non-odontogenic cysts.

* Nasopalatine duct cyst: clinical presentation, diagnosis, differential diagnosis, and treatment

1. Pseudocysts: idiopathic bone cavity (traumatic, simple, or hemorrhagic bone cyst), aneurysmal bone cyst, and Stafne bone defect.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 4**

**Tumours and tumour-like lesions of the neck and lymph nodes.**

**Workplace:** Clinical Foundations of the Department.

**Objective of the work:** To acquire knowledge of the clinical features, diagnostic approach, and therapeutic management of congenital cysts and fistulas in the oral and maxillofacial region.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Cysts and cysts-like lesions (ranula, lymphoepithelial cyst, branchial cleft cyst, thyroglossal duct cyst, dermoid and teratoid cysts). General overview.*
2. **Ranula.** Clinical presentation, diagnosis, and differential diagnosis.
3. Congenital lateral cervical (**branchial**) cysts: clinical presentation, diagnosis, and differential diagnosis.
4. Congenital midline cervical (**thyroglossal duct**) cysts: clinical presentation, diagnosis, and differential diagnosis.
5. **Dermoid and epidermoid cysts** in the oral and maxillofacial region: clinical presentation, diagnosis, and differential diagnosis.
6. Principles of treatment for congenital cysts and fistulas of the oral and cervicofacial regions.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 5**

**Odontogenic and maxillofacial benign bone tumours**

**Workplace:** Clinical Foundations of the Department.

**Objective of the work:** During the practical course, students will acquire knowledge about the clinical picture, diagnosis, and treatment benign odontogenic tumors of the jaws.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Benign epithelial odontogenic tumours (adenomatoid odontogenic tumour, squamous odontogenic tumour, calcifying epithelial odontogenic tumour, unicystic ameloblastoma, extraosseous / peripheral ameloblastoma, conventional ameloblastoma, adenoid ameloblastoma). General overview.*
2. *Benign mixed epithelial odontogenic tumours (odontoma, primordial odontogenic tumour, ameloblastic fibroma, dentinogenic ghost cell tumour). General overview.*
3. *Benign mesenchymal odontogenic tumours (odontogenic fibroma, cementoblastoma, cemento-ossifying fibroma, odontogenic myxoma). General overview.*
4. **Ameloblastoma**: clinical presentation, diagnosis, differential diagnosis, treatment, and complications.
5. **Cementoma**: classification, clinical presentation, diagnosis, differential diagnosis, treatment, and complications.
6. **Odontoma**: classification, clinical presentation, diagnosis, differential diagnosis, treatment, and complications.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 6**

**Benign non-odontogenic tumors of the jawbones**

**Workplace:** Clinical Foundations of the Department.

**Objective of the work:** During the practical course, students will acquire knowledge about the clinical picture, diagnosis, and treatment of primary benign osteogenic tumors of the jaws.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Fibro-osseous tumours and dysplasias (cemento-osseous dysplasia, segmental odontomaxillary dysplasia, fibrous dysplasia, juvenile trabecular ossifying fibroma, psammomatoid ossifying fibroma, familial gigantiform cementoma). General overview.*
2. *Benign maxillofacial bone and cartilage tumours (osteoma, osteochondroma, osteoblastoma, chondroblastoma, chondromyxoid fibroma, desmoplastic fibroma of bone). General overview.*
3. **Jaws osteoma**. Clinical picture, diagnosis, differential diagnosis, treatment, complications.
4. **Osteoclastoma** (giant cell tumor - GCT). Classification, clinical picture, diagnosis, differential diagnosis, treatment.
5. **Chondroblastoma.** Clinical picture, diagnosis, differential diagnosis, treatment.
6. **Fibrous dysplasia of the maxilla**. Clinical picture, diagnosis, differential diagnosis, treatment.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 7**

**Benign soft tissue tumors in the OMF region.**

**Workplace:** Clinical Foundations of the Department

**Objective of the work:** During the practical session, students will acquire the clinical understanding, diagnosis, and treatment of benign tumors of the soft tissues in the OMF area.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Adipocytic tumours (lipoma). General overview.*
2. *Fibroblastic and myofibroblastic tumours (nodular fasciitis, desmoid fibromatosis, solitary fibrous tumour). General overview.*
3. *Vascular tumours (haemangioma, lymphangioma). General overview.*
4. *Pericytic (perivascular) tumours (myofibroma). General overview.*
5. *Smooth muscle tumours (leiomyoma). General overview.*
6. *Skeletal muscle tumours (rhabdomyoma). General overview.*
7. *Peripheral nerve sheath tumours (neurofibroma, schwannoma, Neuroma). General overview.*
8. **Lipoma** and lipomatosis – Madelung’s disease: clinical presentation, diagnosis, differential diagnosis, and treatment.
9. **Haemangioma** of the oral and maxillofacial region: classification, clinical presentation, diagnosis, differential diagnosis, and treatment.
10. **Lymphangioma** of the oral and maxillofacial region: clinical presentation, diagnosis, differential diagnosis, and treatment.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 8**

**Benign epithelial** **tumors of the oral cavity.**

**Workplace:** Clinical Foundations of the Department

**Objective of the work:** During the practical session, students will acquire the clinical understanding, diagnosis, and treatment of benign tumors of the soft tissues in the OMF area.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Epithelial tumours (Squamous papillomas). General overview.*
2. *Tumours of uncertain histogenesis (congenital granular cell epulis, granular cell tumour, ectomesenchymal chondromyxoid tumour). General overview.*
3. **Papilloma** in the oral and maxillofacial region: clinical presentation, diagnosis, differential diagnosis, and treatment.
4. **Oral papillomatosis**: clinical presentation, diagnosis, treatment, and complications.
5. **Epulis**: classification, clinical presentation, diagnosis, differential diagnosis, and treatment.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 9**

**Benign tumors of the salivary glands.**

**Workplace:** Clinical Foundations of the Department

**Objective of the work:** During the practical session, students acquire the clinical aspects, diagnosis, and treatment of benign tumors and pseudotumoral lesions of the salivary glands.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. *Topographic anatomy and functions of the salivary glands.*
2. *Classification of tumors and pseudotumors of the salivary glands.*
3. *Non-neoplastic epithelial lesions (Nodular oncocytic hyperplasia, Lymphoepithelial sialadenitis). General overview*
4. *Benign epithelial tumours (Pleomorphic adenoma, Basal cell adenoma, Warthin tumour, Oncocytoma, Salivary gland myoepithelioma, Canalicular adenoma, Cystadenoma of salivary gland, Ductal papillomas, Sialadenoma papilliferum, Lymphadenoma, Sebaceous adenoma, Intercalated duct adenoma and hyperplasia, Striated duct adenoma, Sclerosing polycystic adenoma, Keratocystoma). General overview.*
5. **Pleomorphic adenoma** of the salivary glands: clinical presentation, diagnosis, differential diagnosis, and treatment.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 10**

**Oral potentially malignant disorders (OPMD)**

**Workplace:** Clinical Foundations of the Department.

**Objective of the work:** to grasp the various ways tumors initiate in the OMF area, along with an exploration of the theory of carcinogenesis.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. Carcinogenesis: cellular changes (hyperplasia, metaplasia, dysplasia).
2. Carcinogenic and risk factors involved in the development of cancer and oral potentially malignant disorders.
3. Definition of the term “oral potentially malignant disorders” (OPMDs).
4. Evolution of terminology: from “precancerous lesions” to OPMDs.
5. WHO 2022 classification of oral potentially malignant disorders (OPMDs) and oral epithelial dysplasia (OED).
6. Classification and clinical features of oral potentially malignant disorders (oral leukoplakia, erythroplakia, erythroleukoplakia, oral lichen planus, oral lichenoid lesions, proliferative verrucous leukoplakia, oral submucous fibrosis).
7. Oral epithelial dysplasia (OED): histopathological concepts (mild, moderate, and severe dysplasia / carcinoma in situ).

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 11**

**Screening and early detection of oral potentially malignant disorders.**

**Workplace:** Clinical Foundations of the Department

**Objective of the work:** To acquire comprehensive knowledge regarding the early manifestations of tumors in the oral and maxillofacial region, the fundamental mechanisms of carcinogenesis, and the clinical and pathological features of oral potentially malignant disorders (OPMDs).

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. Clinical management of oral potentially malignant disorders (OPMDs)
   * Diagnostic algorithm: clinical examination + biopsy + follow-up
   * Non-invasive methods for early detection and diagnosis of lesions with malignant potential: chemiluminescence, tissue autofluorescence, vital staining
   * Monitoring strategies: follow-up intervals, photographic documentation, rebiopsy
   * Surgical indications and adjuvant treatments
   * Role of the multidisciplinary team: ENT specialist, pathologist, oncologist
2. The role of incisional and excisional biopsy: techniques.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.

**Topic No. 12**

**Cancer surveillance. Methods for early diagnosis and prevention of malignant tumors in the OMF area.**

**Workplace:** Clinical Foundations of the Department

**Objective of the work:** During the practical session, students will acquire the fundamental principles of cancer surveillance and the methods of early diagnosis of malignant tumors and their metastases in the OMF area.

**Form of training and duration:** seminar and practical lesson, 225 min.

**Questions:**

1. Histopathological classification of malignant tumors according to the World Health Organization (WHO).
2. Clinical and imaging-based staging of malignant tumors (TNM system).
3. Clinical manifestations of malignant tumors located in the head and neck region.
4. The importance of eliminating acute and chronic odontogenic infectious foci prior to initiating radiotherapy targeting the oral and maxillofacial region.
5. Therapeutic principles of radiotherapy and chemotherapy in malignant tumors: elements of dosimetry and radioprotection measures.
6. Impact of radiotherapy on the maxillary bone tissue
7. The role of bisphosphonates in the etiopathogenesis of inflammatory bone complications in the maxilla and mandible.

### BIBLIOGRAPHY:

1. Lecture materials.
2. Head and neck cancer. Bruce Brockstein. GregoryMasters. 2004.
3. Targeting oral cancer. Andrew M.Fribley. Springer. 2016.
4. <https://iris.who.int/bitstream/handle/10665/43552/3540618481_eng.pdf>.