***UNION EUROPEENNE DES MEDECINS SPECIALISTES (UEMS)***

***EUROPEAN UNION OF MEDICAL SPECIALISTS (UEMS)***

**OTO-RHINO-LARYNGOLOGY**

**- HEAD AND NECK SURGERY**

**TRAINING PROGRAMME**

**Logbook**

**VI. Head and Neck**

**BASIC KNOWLEDGE (Stanislaw Bien and Pavel Dulguerov and Heikki Irjala)**

**SINONASAL (Michalis Papamichalopoulos)**

**THYROID (Ulrik Pedersen and Renato Piantanida)**

**HYPOPHARYNX (Rajko Jovic)**

**CANCER OF THE UNKNOWN PRIMARY (Charalampos Skoulakis)**

**LARYNX (Henri Marres)**

**SALIVARY GLAND (Francis Marchal)**

**NASOPHARYNX (Norbert Stasche)**

**ORAL CAVITY (Jan Plzak)**

**OROPHARYNX (Jan Plzak)**

**NECK (Pavel Dulguerov)**

**SKIN (Heikki Irjala)**

**COMPLICATIONS**

**TRACHEA (Ulrik Pedersen)**

**OESOPHAGUS (Ulrik Pedersen)**

**DYSPHAGIA**

**Snoring and other Sleep Related Breathing Disorders (SRBD) (Norbert Stasche))**

Stanislaw Bien and Pavel Dulguerov and Heikki Irjala

**Basic knowledge**

Carcinogenesis and molecular biology in H&N oncology

Basics of cancer management

* Indications and limitations of surgery
* Biophysics of radiotherapy – indications and side effects
* Chemotherapy agents, indications and side effects
* Biologic therapy

Epidemiology and biostatistics of cancer management

Clinical trials in H&N

Prevention of H&N cancer

Clinical databases

**History**

- Family history (oncology perspective)

- Smoking tobacco, chewing tobacco, betel quid

- Alcohol consumption

- History of previous tumours,

- Previous head and neck irradiation

- First symptoms

- Congenital abnormalities

**Diagnostic work-up**

* Clinical examination
* Videolaryngoscopy
* Endoscopy
* Imaging (Ultrasound, PET-CT, CT, PET-MRI, MRI, OPG, X-ray)
* FNAC / open biopsy**Staging**

Treatment planning – single modality v. comprehensive management

Principles and safety of lasers in H&N management

Reconstruction options for H&N defects

* Flap physiology and wound healing

**Treatment**

**Surgery**

**Non-surgical treatment**

**(Chemo)radiotherapy**

**Biologic therapy**

**Airway management in H&N**

**Non-surgical aspects of H&N**

- Pharmacological therapy

* Co-morbidities
* Nutritional aspects
* Prevention and treatment of infections
* Pain management
* Palliative care
* Speech and swallowing rehabilitation

**Follow-up and surveillance of H&N**

**Complications in H&N**

* Surgical complications,
* Non-surgical complications

Michalis Papamichalopoulos

**Nose and Paranasal Sinuses**

**Specific history**

* Repeated rhino-sinusitis
* Symptoms (obstruction, epistaxis, rhinorrhea, facial pain, diplopia, etc.)
* Assessment of ethnic variation
* Enviromental factors
* Occupation

**Clinical Examination**

* General ENT examination
* Evaluation of congenital abnormalities and ethnic variations
* Evaluation of symptoms (nasal obstruction, epistaxis, rhinorrhea, facial pain, cranial nerves)
* Eye examination (movement, pareses)
* Anterior and posterior rhinoscopy
* Fiber and/or rigid endoscopy and videoendoscopy

**Imaging**

* Interpretation of CT scan, MRI, Isotope scan
* PET scan in selected cases
* Angiography in selected cases

**Results of Cytology, Histopathology, Microbiology**

* Nasal sampling for cytology
* Biopsy, evalution of results
* Microbiology tests

**Tumour biopsy and tumour staging**

**Diseases**

**Tumours of the nose and paranasal sinuses**

**Benign tumours**

* Inverted Papilloma
* Adenoma
* Mixed tumor
* Angiofibroma
* Neurofibroma
* Nevus
* Chondroma
* Meningeoma
* Osteoma
* Fibrous dysplasia

**Malignant tumours**

* Squamous cell carcinoma
* Adenocarcinoma
* Minor salivary gland cancer
* Undifferentiated carcinoma
* Malignant melanoma
* Olfactory neuroblastoma
* Lymphomas
* Sarcomas, (Ewing’s sarcoma, fibrosarcoma, angiosarcoma, osteogenic sarcoma)
* Odontogenic tumors

**Surgery of the nose and paranasal sinuses**

* Sinus endoscopy and video endoscopy *(i)*
* Management and use of navigation systems *(s)*
* Endoscopic antrostomy *(i)*
* External frontal sinus surgery *(s)*
* External ethmoidectomy *(s)*
* External maxillary sinus surgery (Caldwel-Luc, trepanation) *(i)*
* Endonasal ethmoidectomy (endoscopic, microscopic) *(i)*
* Endonasal frontal sinus surgery *(s)*
* Endonasal sphenoid sinus surgery *(s)*
* Endonasal maxillar sinus surgery *(i)*
* Closure of oro-antral fistula *(i)*
* Turbinate surgery (coblation, RFA, conchotomy) *(i)*
* Orbital decompression procedures *(adv.)*
* Dacryo-cysto-rhinostomy *(adv.)*
* Ligation of maxillary or ethmoidal artery *(s)*
* Endoscopic ligation of sphenopalatine artery *(s)*
* FESS including endoscopic anterior and posterior ethmoidectomy, *(i)*
* Frontal and sphenoid sinus surgery *(s)*
* Management of CSF leak *(adv)*
* Functional nasal surgery (nasal valve, tip support, aging of the nose) *(s)*

**Tumour surgery**

1. maxillectomy (partial, total) *(adv)*
2. lateral rhinotomy *(s)*
3. midfacial degloving *(adv)*
4. combined approach to the anterior skull base (use of navigation system) *(adv)*
5. orbitotomy *(adv)*
6. exenteration of orbit *(adv)*
7. surgery of the anterior skull base (including ostoplastic flap, dura plasty and related techniques) *(adv)*
8. revision paranasal sinuses operation *(s)*

**Repair of injuries (traumatology)**

1. soft tissue injuries *(i)*
2. nasal fractures *(i)*
3. septal haematoma *(i)*
4. paranasal sinus fractures *(i)*
5. fractures of orbit including blow out fracture *(i)*
6. fractures of zygoma *(i)*
7. optic nerve decompression *(adv)*
8. reconstruction of the anterior skull base *(adv)*

**Additional therapy**

* Non-surgical management of sino-nasal diseases (antimicrobial, antifungal, antiallergic etc.)
* Interdisciplinary management
* Anaphylaxis reaction therapy
* Non-surgical treatment of sleep apnoea
* Post-operative care

**Surgical complications**

* Management of post-operative bleeding
* Management of post-operative infection
* Orbital hematoma
* Trauma to the optic nerve
* Iatrogenic cranial nerves injuries
* Intracranial complications

Ulrik Pedersen and Renato Piantanida

**Surgical disases of the thyroid and parathyroid**

**Specific history**

-head and neck irradiation

-family history of thyroid disease

-age <14 or >70

-cervical adenopathy

-dysphonia

-symptoms of hypo- or hyperthyroidism

**Blood tests**

- TSH

- if abnormal TSH – free Thyroxine and free Triiodothyroxine

- if high TSH – Thyroid antibodies

- Thyroglobulin and Calcitonin in specific cases

- Calcium level

- parathormone

**Clinical examination**

-general ENT examination

-fiberlaryngoscopy

-palpation of the thyroid gland

-examination of cervical lymph nodes

-if palpable node in the thyroid:

\*location,consistence and size

\*neck tenderness or pain

**Imaging**

-ultrasound examination of the thyroid gland and the neck:

\*patients at risk for thyroid malignancy

\*patients with palpable thyroid nodules

\*patients with multinodular goiter

\*patients with lymphadenopathy suggestive of a malignant lesion

-if a lesion is found – ultrasound guided fine needle aspiration:

\*nodules larger than 1cm (solid or hypoechoic)

\*all nodules suggestive of extracapsular growth

\*suspicion of metastatic cervical nodes

\*nodules of any size in irradiated patients and patients suspected of medullary carcinoma or family history of the same.

\*previous surgery for thyroid cancer

\*hot areas on scintigraphy are not indicated for fine needle aspiration

-MRI and CT are indicated in cases suspicious of substernal extension and in cases suspected of malignancy.

**Results of cytology**

-non-diagnostic

-benign (nodule or cyst)

-follicular neoplasia(risk of cancer)

-suspicious lesion

-malignant (most often papillar cancer)

**Thyroid scintigraphy (indications)**

Scintigraphy is performed for a thyroid nodule or multinodular goiter if the TSH level is below the lower limit of the reference range.

Sestamibi scan for parathyroid

**Diseases**

-goiter (normal or toxic thyroid function)

-thyroid nodule(benign atoxic, benign toxic, malignant)

-thyroid cancer

-thyroiditis

-parathyroid disorders and neoplasms

**Thyroid surgery**

-hemithyroidectomy (i)

\*unilateral benign disease(cyst or benign nodule)

\*unilateral low risk malignant disease group(<1 cm papillary thyroid carcinoma), with no neck nodes.

- total thyroidectomy (s)

\*diffuse enlarged hyperthyroid goiter , resistant to medical treatment

\*diffuse enlarged goiter with normal thyroid function(compression or

cosmetic)

\*all cancer cances (except low risk malignant group)

- excisional biopsies of thyroid nodules are not indicated.

- parathyroidectomy

**Additional therapy**

-treatment with thyroid hormone after total thyroidectomy

-medical treatment of hypocalcaemia

-radioactive iodine

-hormone suppresion therapy

-radiation therapy

-rehabilitation for vocal cord paresis (Conservative or surgical treatment of unilateral or bilateral recurrent nerve palsy)

**Surgical complications**

- bleeding

- postoperative seroma

- infection

- paralysis of the recurrent laryngeal nerve (temporary or permanent)

- hypoparathyroidism

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Rajko Jovic

**Hypopharynx**

**Specific history**

Smoking, alcohol consumption

Swallowing problems

Respiratory symptoms (nightly coughing)

Weight loss

Otalgia

**Clinical examination**

* Indirect laryngoscopy, direct laryngoscopy (fiberendoscopy), esophagoscopy

**Imaging procedure**

* CT, MR, PET, barium swallow,ultrasound

**Hypopharyngoscopy** (rigid endoscope) with tumor biopsy and tumor staging

**Conservative treatment**

Pharmacological therapy

Chemotherapy, Radiotherapy

**Surgical management (s)**

Pharyngotomy

Pharyngostomy

Closure of pharyngostoma

Endoscopic stabling of Zenker's diverticulum

Endoscopic laser treatment of Zenker's diverticulum

External surgery of Zenker's diverticulum

Surgery for benign hypopharyngeal neoplasms

Cricopharyngeal myotomy

**Surgery for hypopharyngeal neoplasms (s)**

Endoscopic surgery for early hypopharyngeal carcinoma

Robotic surgery for early hypopharyngeal carcinoma

Partial pharyngectomy

Partial pharyngectomy with partial laryngectomy

Partial pharyngectomy with Near total laryngectomy

Partial pharyngectomy with total laryngectomy

Total pharyngectomy with total laryngectomy

Total pharyngo-laryngo-esophagectomy with reconstruction

**Oncological treatment for hypopharyngeal cancer**

Charalampos Skoulakis

**Carcinoma of unknown primary**

1. **Diseases**

Malignant neck node

SCC

Other histological types including “extra H&N-origin tumours”

1. **History**

Nasal Obstruction

Epistaxis

Rhinorrea

Oral lesion

Dysphonia

Dysphagia

Dyspnea

Otalgia

Hypoacusia

Tobacco and alcohol

Viral infection (HPV, EBV, …)

Previous malignancies

Head and neck irradiation

Occupation: woodworker, …

Unilateral or bilateral unexpected conductive hearing loss

Ethnicity

1. **Clinical examination**

- general ENT examination including inspection and palpation of the neck

- endoscopic assessment (flexible, rigid) of nasal cavity, oral cavity, pharynx, larynx and oesophagus, tracheobronchial tree including use of NBI and biopsies

- examination under general anesthesia, bilateral tonsillectomy, biopsy from the base of the tongue and nasopharynx

1. **Diagnostic work-up**

- Imaging - US, CT, MRI, FDG-PET-CT (whole-body)

- relevant blood tests including serum calcitonin, and thyroglobulin, virology (HPV, EBV, HIV, …)

- fine needle aspiration cytology (FNAC)

- audiogram / tympanogram

1. **Treatment**

- In case of negative biopsies and negative imaging, then neck surgery will be indicated.

- In case of diagnosis of a primary malignant tumor, the treatment will be according to the primary location, the stage of disease, general conditions of the patient.

**Non-surgical Management**

- (chemo)radiotherapy

- biologic therapy (cetuximab, …)

**Surgical Management**

- removal of lymph-nodes (i)

- neck dissection

a. selective neck dissection (s)

b. modified radical neck dissection (s)

c. radical neck dissection (s)

d. extended neck dissection (s)

1. **Complications**

- bleeding

- chyle leak

- seroma

- infection

- nerve injury (cranial nerves)

- hypothyroidism (especially in combination with radiotherapy)

- early and late radiotherapy complications

- early and late chemotherapy complications

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Henri Marres

**Larynx**

**1. Diseases**

Benign lesions

- Reincke’s oedema

- Granuloma

- Nodule

- Polyp

- Papilloma

- Stenosis (congenital or acquired)

- Severe dysplasia/ carcinoma in situ

- Squamous cell carcinoma

- Verrucous carcinoma

- Other rare malignant diseases

**2. History**

**Specific history**

Hoarseness/ dysphonia

Dysphagia

Dyspnoea

Otalgia

Neck mass

**General history**

- smoking

- drinking

- head and neck irradiation

- previous malignancies

- family history of head and neck malignancies

- age >50

**3. Clinical examination**

- general ENT examination

- fibreoptic laryngoscopy/ videolaryngoscopy / NBI

- palpation/examination of cervical lymph nodes

- palpation of the laryngeal region

**4. Diagnostic work-up**

**Imaging**

- ultrasound examination of the neck in >T1 glottic tumours and all other laryngeal carcinoma cases

- ultrasoud guided fine needle aspiration cytology

- CT scan of neck and larynx in >T1 glottic tumours and all other laryngeal carcinoma cases

- MRI is indicated when CT scan cannot be performed

- Chest x-ray (metastases and second primary tumours)

- CT scan chest in >N2a

- PET-CT can be of additional value

**Diagnostic procedures**

- examination under general anesthesia

- NBI, contact microlaryngoscopy, etc.

- microlaryngoscopy and also panendoscopy if needed

- biopsy

- cytology in case of necknodes

**5. Treatment**

**Radiotherapy**

**Chemotherapy**

- Neoadjuvant

- Adjuvant

- Concomitant

- Palliative

Photodynamic therapy, immunotherapy

**Surgery**

- endoscopic or open surgery (i)

- benign tumours

- malignant tumours

- stenosis

- microlaryngoscopic surgery (i)

-CO2 laser

-YAG laser

- chordectomy (s)

- vertical laryngectomy (s)

- horizontal laryngectomy (s)

- near total laryngectomy (s)

- total laryngectomy (s)

- selective / conservative/ radical neck dissection (s)

Primary or secondary placement of vocal prosthesis (s)

Closure of pharyngocutaneous fistula (flaps) (s)

Surgery for stenosis of tracheostoma (i)

Myotomy of cricopharynegal sphincter (s)

Antiviral, Xylocain or botox infiltration (i)

**Maintenance and change of speech prosthesis** (i)

**Surgical complications**

- bleeding

- infection

- pharyngo-cutaneous fistula

- voice disorders

- swallowing disorders

- hypothyroidism (especially in combination with radiotherapy)

**6. Complications**

- early and late radiotherapy complications

- early and late chemotherapy complications

- surgical complications

- bleeding

- infection

- voice disorders

- dysphagia

- airway obstruction

- fistula

- hypothyroidism (especially in combination with radiotherapy)

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Francis Marchal

**SALIVARY GLAND**

**1. Diseases**

Immunological disorders

Infections

Salivary stones

Benign neoplasms

Malignant neoplasms

**Prerequisite knowledge**

ESGS classification of salivary ductal pathologies - LSD classification

ESGS classification of parotid surgery

Knowledge about salivary tumors and prognosis

Knowledge about immunologic diseases

**2. History**

Mass within the salivary gland

Persistant lesion consistent with an accessory salivary gland tumor

Dry mouth – salivary swellings – immunologic disorders

Recurrent swellings and infection during meals

**3. Clinical examination**

**Physical examination**

Palpable mass in the salivary gland

Lymph nodes - extension

Lesion compatible with an accessory salivary tumor

Presence/ absence of saliva and quality of it (thickness, pus)

Presence of an abcess

**Functional tests**

Sialometry

Scintigraphy

**Imaging**

Ultrasound

MRI and Sialo MRI

CT scan

FNA biopsy

**Diagnostic sialendoscopy - LSD classification**

**Stones** L1: floating stones; L2: fixed stones<8mm; L3 fixed stones>8mm

**Strictures** S1: localized thin stricture; S2: localized thisk stricture; S3: diffuse stricture of main duct; S4: diffuse stricture of the ductal system.

**Treatment**

**Interventional sialendoscopy** (s)

Stone-stone fragments retrieval with basket or forceps

External Stone fragmentation with extracorporeal lithotrypsy

Intraductal Stone fragmentation with laser or other device

Intraductal dilatation with disposable baloon

Intraductal dilatation with dilators or scopes

Intraductal biopsies

**Combined procedures** (s)

Sialendoscopy and intraglandular removal of a salivary stone via intraoral approach

Sialendoscopy and intraglandular removal of a salivary stone via external approach

**Surgery**

Accessory salivary gland biopsies (i)

Open biopsy of ONLY complex salivary tumours

Main salivary gland biopsies (adv)

Intraoral retrieval of a submandibular stone (anterior to mylohyoid bend) (i)

Intraoral retrieval of a parotid stone (anterior to the masseter bend) (i)

Intraoral surgical removal of a stricture (end-to end anastomosis or veinous patch) (adv)

Repair / replacement with veinous grafting of salivary ducts via an intraoral surgical approach (adv)

Repair / replacement with venous grafting of salivary ducts via a parotid surgical approach (adv)

Stenting of salivary ducts (adv)

Submandibular surgery (i)

Parotid partial surgery (Levels I to V according to the ESGS classification) (i)

Parotid total surgery (s)

Nerve harvesting and facial grafting (adv)

Reconstruction (local flaps, SCM and SMAS, Fat) (adv)

Salivary gland wounds and ductal repair (s)

**Surgical complications**

Management of intraoperative bleeding (i)

Management of intraoperative nerve damage (s)

Management of post-operative hematomas (i)

Management of post-operative salivary fistulas (i)

Management of infections (i)

Management of the paralyzed face (adv)

- eyelid gold weights

- canthoplasty

- complex procedures of facial reanimation

**Additional therapy**

Radiation therapy

Chemotherapy

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Norbert Stasche

**Nasopharynx**

**1. Diseases**

Benign: adenoid (hypertrophy, hyperplasia), cyst of Thornwaldt, juvenile angiofibroma

Malignant: nasopharyngeal carcinoma (WHO 2016), nasopharyngeal papillary adeno-ca, salivary-type carcinomas

**2. History**

- variable ear, nose and throat symptoms

- unilateral middle ear effusion in the adult

- neck mass

- sex and age (adenoidal hypertrophy in the pediatric age group, juvenile angiofibroma - JNA in teenage males)

- nose bleeding (JNA in teenage males)

- patients origin and ethnicity (Epstein-Barr-virus-related undifferentiated type of carcinoma in several Asian regions)

- prior adenoidectomy

**3. Clinical examination**

- general ENT examination

- transnasal rigid endoscopy and biopsy

- transnasal fiberopticpharyngolaryngoscopy and biopsy

- examination of cervical lymph nodes

- panendoscopy (direct microlaryngoscopy, tracheobrochoscopy, esophagoscopy) to rule out second primary tumours in cases suspicious of NPC

**4. Diagnostic work-up**

**Imaging**

- ultrasound examination of the the neck

- if a lesion is found – consider ultrasound guided fine needle aspiration

- MRI and CT with contrast are indicated in cases suspicious of malignancy

- MR angiography and preoperative angiographic evaluation and embolization of JNA

- chest radiograph, ultrasound of liver and bone scan in cases suspicious of NPC, alternatively CT scan of the lungs and liver

**Blood tests**

- consider EBV virus diagnostics in cases suspicious for nasopharyngeal carcinoma - NPC (EBV viral capsid antigen – IgA VCA, EBV nuclear cor early antigen – Ea)

**5. Treatment**

**Benign:**

- benign nasopharyngeal masses are managed surgically by endoscopic approach (transnasal or transoral) (i)

- adenoidectomy (i)

- JNA: the primary treatment is surgical resection (all adv)

- the transnasal endoscopic approach is being used more frequently in limited extensions of the JNA mass

- in more extensive JNA: mass is managed by open approach

- in cases with intracranial JNA: interdisciplinary management with head and neck surgeons and neurosurgeons is required

**Malignant:**

- early stages of NPC are treated by definitive radiotherapy to nasopharynx and elective radiotherapy therapy to neck

- alternatively endoscopic surgery is reserved for small, limited NPC lesions (adv)

- advanced NPC cases are treated by chemoradiation

- a neck dissection is indicated in cases with residual neck masses for salvage (s)

**6. Surgical complications**

- bleeding

- infection

- paralysis of the accessory nerve (temporary or permanent)

- paralysis of additional cranial nerves according to skull bases involvement of the tumor or treatment options

- functional disorders of the Eustachian tube with hearing loss (temporary or permanent)

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**Jan Plzak**

**ORAL CAVITY**

**1. Diseases**

**Benign**

Leukoplacia

Erythroplacia

Cysts

Mucosele

Drooling

Clefts

Glossal diseases (dynia, hairy, etc.)

Dental related diseases

Infectious diseases

Rheumatoid diseases

Dry mouth

Halitoses

**Malignant**

**S**evere dysplasia/ carcinoma in situ

Squamous cell carcinoma

Verrucous carcinoma

Other malignant diseases

**2. Specific history**

Alcohol and Tobacco

Dental Hygiene

Previous radiation therapy

Weight loss

Reflux

Articulation

Swallowing

**3. Clinical examination**

- general ENT examination including fibrolaryngoscopy

- palpation of the primary lesion

- palpation of the neck

**4. Diagnostic work-up**

- MRI / CT

- PET-MRI / CT

- OPG

- ultrasound of the neck + cytology

- chest x ray / CT

- biopsy

- panendoscopy

**5. Treatment**

Lifestyle advices

**Medical treatment**

Topical medications

Systemic medications

**Non surgical treatment of neoplasms**

- primary radiotherapy

- primary chemoradiotherapy

- radiotherapy and concomitant biological therapy

-(induction chemotherapy and chemoradiotherapy – clinical trials only)

- postoperative radiotherapy

- postoperative chemoradiotherapy

**Surgical treatment**

- local surgery (incl. laser) (i/s)

- open neck surgery – pull through procedure (adv)

- marginal mandibulectomy (adv)

- segmental mandibulectomy (adv)

- sentinel node (adv.)

- neck dissection with any surgery (s)

ND I-III as elective procedure

ND I-IV or I-V as therapeutic procedure

Bilateral ND in case the lesion crosses the midline

**6. Complications**

- bleeding

- infection

- orocutaneous fistula

- speech and swallowing impairment

- mucositis, dermatitis

- osteradionecrosis

- speech and swallowing impairment

- hypothyroidism

- airway obstruction

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**Jan Plzak**

**Oropharynx**

**1. Diseases**

**Benign**

Leukoplacia

Erythroplacia

Cysts

Infectious diseases

Halitoses

Hypertrophia

Papilloma

Varicose veins (?)

Congenital fistulas

**Malignant**

**S**evere dysplasia/ carcinoma in situ

Squamous cell carcinoma

Verrucous carcinoma

Other malignant diseases

**2. Specific history**

Alkohol and Tobacco

HPV infection

Previous radiation therapy

Weight loss

Reflux

Articulation

Swallowing

Family history

Snoring

**3. Clinical examination**

- general ENT examination including fibrolaryngoscopy

- palpation of the primary lesion

- palpation of the neck

**4. Diagnostic work-up**

- MRI / CT

- PET-MRI / CT

- ultrasound of the neck + cytology

- chest x ray / CT

- biopsy

- panendoscopy

**5. Treatment**

Lifestyle advices

**Medical treatment**

Topical medications

Systemic medications

**Non surgical treatment of neoplasms**

- primary radiotherapy

- primary chemoradiotherapy

- radiotherapy and concomitant biological therapy

-(induction chemotherapy and chemoradiotherapy – clinical trials only)

- postoperative radiotherapy

- postoperative chemoradiotherapy

**Surgical treatment**

- tonsillectomy (i)

- local surgery (incl. laser) (i/s)

- transoral surgery (s)

- transoral robotic surgery (adv)

- lateral pharyngotomy (adv)

- medial pharyngotomy (adv)

- temporary mandibulotomy (mandibular split, mandibular swing) (adv)

- transmandibular bucopharyngectomy (segmental mandibulectomy, commando procedure) (adv)

- neck dissection with any surgery (s)

ND I-III as elective procedure

ND I-IV or I-V as therapeutic procedure

Bilateral ND in case the lesion crosses the midline

**6. Complications**

- bleeding

- infection

- pharyngocutaneous fistula

- speech and swallowing impairment

- mucositis, dermatitis

- osteradionecrosis

- speech and swallowing impairment

- hypothyroidism

- airway obstruction

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Pavel Dulguerov

**Neck**

**Specific history**

**- ?**

**Anatomy of the neck**

* fasciae, compartments and spaces
* neck lymph node levels

**Neck masses**

* classification (age, etiology, spaces, ...)
* diagnostic approach (clinical, radiologic, FNA, ...)
* congenital neck masses (thyroglossal duct cyst, branchial anomalies, vascular malformations)
* benign tumors (paraganglioma, schwannoma, lipoma, hemangioma)
* infectious and inflammatory lymphadenopathies (tuberculosis, cat-scratch, actinomycosis, toxoplasmosis, HIV)
* primary malignant tumors of the neck (rhabdomyosarcoma, lymphoma)
* CUP evaluation and management (see separate paragraph)

**Deep neck infections**

* microbiology
* diagnosis
* treatment

**Neck trauma**

* clinical presentation
* mechanisms of injury
* neck trauma zones
* mandatory vs. elective neck exploration
* evaluation and management

**Imaging**

- ultrasound examination of the neck (with FNAC)

- CT scan of head and neck

- MRI head and neck

- Chest x-ray (metastases and second primary tumours)

- CT scan chest: in >N2a

- PET-CT can be of additional value

**Lymph node biopsy**

**Removal of congenital cysts**

**Neck dissection** (s)

* levels and classification
* indication according to primary tumour
* sentinel node technique
* selective neck dissection
* modified radical neck dissection
* radical neck dissection
* extended neck dissection
* complications

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Heikki Irjala

**SKIN TUMOURS**

1. **Diseases**

- squamous cell carcinoma

- basal cell carcinoma (superficial / infiltrative / nodular)

- melanoma (lentigo maligna / superficial / nodular / others)

- others (Merkel cell carcinoma, …)

benign tumors

1. **Specific history**

- UV-light

- fair skin

- excessive sun exposure / history of sunburns

- family history

- moles

- precancerous lesion

1. **Clinical examination**

- general ENT examination

- inspection and palpation of the primary lesion

- palpation of the neck

1. **Diagnostic work-up**

- imaging of the neck (whole body in melanoma): US / CT / MRI / PET-CT

- biopsy techniques

**Staging**

- TNM classification

**Sentinel node technique**

- melanoma

1. **Treatment**

**Surgical treatment**

- surgical excision – benign (i), malignant (s)

- local flaps (s)

- reconstruction of the nose, lip and other structures (a)

**Non surgical treatment**

- (chemo)radiation therapy

- photodynamic therapy

- topical treatment (imiquimod / 5-fluorouracil, …)

- biologic therapy (vismodegib, …)

1. **Complications**

- bleeding

- infection

- nerve injuries

- speech and swallowing impairment

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**Ulrik Pedersen**

**TRACHEA**

1. **HISTORY**

Dyspnoa

Hoarsness

Swollowing problems

Neck pain

1. **Clinical examination**

Fiberoptic laryngoscopy

Transnasal fiberoptoc tracheobronchoscopy

Tracheobronchoscopic cytology

Tracheobronchoscopic histopathology

1. **Diagnostic work up**

CT scan

MRI scan

1. **Diseases**

Posttraumatic stenosis

Foreign bodies

Congenital stenosis

Benign tumours (fibroma, haemangioma, pseudotumor…)

Malignant tumors (adenoid cystic carcinoma, adenocarcinoma, planocellular carcinoma, metastasis)

1. **Treatment**

Removal of foreign bodies (rigid and /or flexible endoscopes)

Endotracheal intubation

Tracheostomy

Cricothyroidotomy

Tracheal resection

Surgical treatment of laryngo-tracheal stenosis

Repair of tracheoesophageal fistula

Reconstructive surgery of trachea

Closure of tracheostoma

1. **Complications**

Stridor

Infection

Ulrik Pedersen

**Oesophagus**

**1. Diseases**

Traumatic perforations (iatrogene)

Foreign bodies

Infections

Achalasia

Hiatal hernia

Benign tumours

Malignant tumours

**2. History**

Swallowing problems

Regurgitation

Retrosternal pain

Weight loss

Coughing (nightly)

**3. Clinical examination**

Flexible esophagoscopy

Functional tests of swallowing disorders

**4. Diagnostic work up**

Barrium swallow x-ray

MRI in selected cases

FEES

**5. Treatment**

Swallowing rehabilitation

Removal of foreign bodies

Endoscopic biopsy and tumor staging

Laryngopharyngectomy

**6. Complications**

Infection

Perforation

Mediastinitis

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**Complications after management of Head and Neck neoplasms**

**Mucocutaneous fistula care**

**Dysphagia**

* **1. History**

Disturbed swallowing for dry food, liquids

Coughing during food intake

Voice changes during food intake

Nasal regurgitation

Fever

* **2. Clinical Examination**

Assessment of orofacial function (i)

Assessment of tongue coordination and motion (i)

Assessment of velar function (i)

Function of the Nn. VII, IX, X (i)

FEES – Fiberoptic endoscopic evaluation of swallowing (i)

Rigid Laryngoscopy (70°, 90°) (i)

Esophagoscopy (i)

Esophageal manometry (adv)

Sonography of tongue during swallowing (adv)

* **3. Diagnostic work up**
  + - * + Imaging (CT, MR, PET, Scintigraphy........)

Videofluoroscopy

Automatic digital swallowing recordings (acoustic or electric devices)

* + - * + Blood tests

Inflammation markers

* + - * + Cytology…
* **4. Diseases**
  + - Benign

Edema of tongue and/or larynx

* + - Malignant

Dysphagia after surgery for oral and oropharyngeal cancer

Dysphagia following hypopharyngeal and/or laryngeal resection

Dysphagia following radiotherapy of oropharyngeal cancer

Dysphagia following radiotherapy of hypopharyngeal and/or laryngeal cancer

* + - Other

Dysphagia caused by…

Apoplectic stroke

M. Parkinson

Myasthenia gravis

Lateral amyotrophic sclerosis

Dementia

* **5. Treatment**
  + - Medical ( incl. chemotherapy)

Corticoids (cave: contraindications)

Artificial saliva

* + - Surgical

PEG

* + - Radiotherapy

-

* + - Additional therapy

Definition of special nutrition

Infusion or stomach tube nutrition

Logopedic therapy

Physiotherapeutic therapy

sEMG Biofeedback

* **6. Complications**

Aspiration

**Norbert Stasche**

**Snoring and other Sleep Related Breathing Disorders (SRBD)**

1. **Diseases**

Obstructive Snoring

Upper Airway Resistance Syndrome

Sleep Apnea Syndrome Obstructive, Central

1. **History**

Non-restful sleep

Excessive daytime sleepiness

Loud snoring

Observed Apnea

Decreased cognitive functions

Headaches

Depression

1. **Clinical Examination**

Obesity

Age

Male

ENT basic Examination, including transnasal flexible rninolaryngoscopy (Müller manoeuvre): nasal obstruction, Adenoids, tonsil hyperplasia, base of the tonge hyperplasia, maxillofacial malformations, pharyngeal and laryngeal obstructions

1. **Diagnostic work up**

Epworth sleepiness scale ESS

Cardiorespiratory sleep study

Polysomnographic sleep study

Daytime sleep studies

Pulmologist Cardiologist Consultation

Option: pupillometry, cephalometry, Spirometry, blood Test, Blood gas test, Drug induced sleep endoscopy (DISE)

1. **Treatment**

Surgical / Nonsurgical: according to the severity of the SRBD

Primary surgery only in heavy snorers and mild to moderate OSA,

Positive airway pressure treatment (PAP) gold standard in moderate to severe OSA,

Reduction of body weight

Surgical treatment:

Septoplasty, turbinoplasty, FESS, adenoid removal, tonsillotomy/tonsillectomy, UPPP, soft palate stiffening implants, palatal radiofrequency, radiofrequency of the base of the tongue, hyoid suspension, maxillo-mandibular advancement (MMA), tracheostomy

Multi level surgery

Hypoglossal nerve stimulation implants

**Nonsurgical treatment**

Drugs: Modafonil in cases of persisting daytime sleepiness symptoms after CPAP

Oral Appliances in mild to moderate OSA

CPAP, APAP, Bi-level PAP, according to severity of OSA, positional and REM-stage related OSA, pressure demand

1. **Complications**

Non-treated OSA patients are at risk for heart failure and stroke and at high risk for car accidents.

Postsurgical side effects depend on surgical procedure, most severe s.e. after soft palate and pharyngeal surgery are acute airway obstruction, dysphagia and retronasal reflux.