Summer School 2017 - Bettlach, den 26.8.17

Panendoscopy

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13:30 - 14:00

Indications

1. Standard of care in staging of HNSCC - Head and Neck Squamous Cell Carcinoma
    - Not routinely performed for nose/paranasal, parotid, thyroid and nasopharyngeal cancer
2. Cancer Treatment: e.g. transoral laser resection
3. Follow-up after cancer treatment
4. Trauma
5. Foreign body - Caustic - Bolus Ingestion
6. Diagnostic purposes: blood ab ore (hematptysie, hematemesis), malformations/congenital disease of upper airways/upper digestive tract, carcinophobia

Why?

- **Diagnosis:** Get tissue biopsy to confirm cancer diagnosis und allow for establishment of risk factors
- **Tumor mapping:** Establish a precise picture of disease extent: resection possible? How to resect? Draw a figure/scheme of tumor extension including relevant anatomic/surgical landmarks!!!
- **Staging:** rule out 2nd primary: 8-12% if history of tobacco use
- **Training:** be prepared in case of emergency (e.g. emergency rigid tracheoscopy and intubation
- **Test for robotic surgery:** exposition of tumor after installing the retractor? Feasibility?

Second primary

- 358 patients
- 2nd primary 16,2%
- 6,4% synchronous and 9,8% metachronous
- Clinically silent 2nd primary in 3,1%

[1] Stoeckli et al. 2001 Otolaryngol Head Neck Sure 2001; 124:208-12

Why not?

- Better Imaging:
  - More and more PET scan available
  - High resolution MRI and CT scan
- FNA can diagnose cancer by lymph node spread
- High quality flexible endoscopes
- CAVE: Hypopharynx hard to visualise by any other way than rigid endoscopy!!!!

What to check?

- Check the upper gastrointestinal tract:
  - Bronchoscopy
  - Esophagoscopy
  - Pharyngoscopy
  - Laryngoscopy
  - Inspection and palpation of oral cavity
  - +/- rhinoscopy, nasopharyngoscopy in selected cases (cancer of unknown primary)

Often combined with…

- Tooth extraction
- Gastrostomy tube insertion
- Tonsillectomy / base of tongue resection
- Tumordebulking of larynx

Consent form…

- Inform patient about the procedure and special risks being:
  - bleeding / hematoma and infection
  - lesions in general possible to inspected regions
  - tooth lesion or loss
  - swelling within the larynx (airway problem)
  - voice changes
  - esophageal scarring / perforation / mediastinitis
  - neck injury with head extension

Ventilation in full anaesthesia by …

- None - Apnea
- Tracheotomy - performed beforehand if indicated
- Oral or nasal tracheal tube
  - Tube size and length matters a lot: for flexible bronchoscopy / visibility of larynx / bleeding of tumour caused by intubation
- Oral or tracheal jet ventilation
- Ventilation through rigid endoscope

Endoscopes available

- Flexible - replace more and more the rigid bronchoscopy and parts of the esophagoscopy
    - no palpation (estimate depth and adherence to deeper tissues),
    - airways not secured by endoscope
    - oesophageal mouth, sinus piriformis, lateral extent of ventricle and undersurface of vocal folds cannot sufficiently be visualised
    - can be performed in local anaesthesia
- Rigid

Which endoscope is right…

- The one that gives the best possible overview of the tumor and allows for best identification of surgical landmarks (e.g. subglottic extension)

Always be prepared….

- For heavy bleeding…electric cautery available
- For airway trouble…rigid tracheoscopy and tracheotomy

In general

- Work from caudal to rostral: bleeding not obscuring the field of view
- If relevant for therapy: biopsy different regions
- Frozen section may help to assess the sampling quality

https://medicine.uiowa.edu/iowaprotocols/panendoscopy

Literature

- Atlas of Head and Neck by J. I. Cohen and G.L. Clayman 1st ed. 2011 (Saunders)
- Jatin Shah's Head and Neck Surgery 4th ed. 2012 (Elsevier)
- Cummings Otolaryngology, Head and Neck Surgery, 6th ed. 2015 (Saunders)
- Cancer of the Head and Neck by J. Myers, E. Hanna and EN Myers 5th ed. 2016 (LWW)