

Injury to the larynx

- We divide into **internal and external** ,
- according to localization, it can also be divided into **supraglottic, glottic, subglottic** .

Internal Injuries

Foreign Bodies

- Bodies **wedged in the entrance** to the larynx are manifested by an immediate attack of violent coughing , laryngospasm , dysphonia , pain,
- bodies located **in the subglottic region** - dyspnea with expiratory stridor ,
- **chronic** foreign body causes local inflammation with the formation of granulations,
- in the case of **organic** foreign bodies, a general reaction of the organism may occur, there is a risk of swelling of the body and thus its extraction is impaired,
- therapy - removal by direct or indirect laryngoscopy , sometimes it is necessary to perform a tracheostomy to secure the airways.

Iatrogenic Internal Injuries

- During or after intubation , by the action of the intubation tube,
- there are mucosal injuries of the entrance, glottis and subglottis with blood suffusion, edema,
- sometimes lacerations with bleeding,
- more rarely, there may be an abruption of the vocal cords or dislocation of the arytenoid cartilage,
- erosions often become secondarily infected (typically formation of post-intubation granulomas),
- it can lead to stenoses,
- it is often due to inadequate size of the endotracheal tube,
- the cuff must not be inflated in the glottis and subglottis area (high risk of stenoses),
- safe intubation time - adults approx. 48 hours, children 5-6 days,
- finding - shortness of breath, less often voice disorder, appears 2-6 weeks after intubation,
- therapy - endoscopic or surgical.



Laryngeal stenosis

Toxic Effects

- **Corrosion** along with corroding of the swallowing tract - the entrance to the larynx is affected,
- the entire larynx is affected when inhaling toxic gases or hot fumes,
- **symptoms** - inspiratory shortness of breath to suffocation, irritating cough,
 - odynophagia and dysphagia in case of injury to the entrance,
 - in the larynx - edema, fibrin coatings and mucosal necrosis,
- **therapy** - early respiratory support - corticoids.

External Injuries

Blunt trauma

- The complex is well protected by the surroundings (lower jaw, sternum...), moreover, it has clearance and when force is applied, it deflects in the direction of the force,
- the most common cause of blunt injuries are **traffic accidents, sports injuries, assaults** , rarely hanging,
- depending on the degree, **we distinguish between coma and contusion** .

Numbness of the larynx

- The larynx has no signs of anatomical damage,
- reflex cardiopulmonary arrest may occur.

Contusion of the larynx

- The larynx is anatomically damaged,
- suffusions, hematomas, distortion of the cricoarytenoid articulation, fractures of the thyroid cartilage,
- most serious:
 - **supraglottic avulsion** - complete circumferential rupture of the larynx at the level of the ventricles, the upper part being pulled behind the mandible and the lower part behind the sternum,
 - **subglottic dislocated fracture of the annular cartilage** - the only circular support of the larynx collapses, obstruction,

- **laryngotracheal avulsion** - separation of the larynx from the trachea, caused by a blow under the annular cartilage during hyperextension of the neck,
- **symptoms** - palpation pain, neck swelling, hoarseness to aphonia, odynophonia, odynophagia, cough, hemoptysis, crepitation of fragments, inspiratory dyspnea,
- **therapy**
 - **in case of suffocation** - securing the airways using a tracheostomy,
 - **conservative procedure** for minor injuries, for fractures without dislocation; voice calm, or feeding tube,
 - **worse** - surgical revision.

Open wounds

- Cuts, incisions and stab wounds are rare,
- open wounds are most often caused by fragments of glass or suicide attempts,
- **basic symptom** - covering the wound with foamy blood, hemoptysis, irritating cough, shortness of breath,
- **therapy** - in case of suffocation - fast and high-quality PP, intubation, tracheostomy, koniopuncture...,
 - tracheostomy is performed as far as possible from the site of injury,
 - surgical revision is almost always necessary.

Odkazy

Externí odkazy

Traumatické změny (<http://atlas.lf1.cuni.cz/ohr/traumaticke-zmeny-12/>)

Source

- BENEŠ, Jiří. *Study materials* [online]. ©2007. [feeling. 2009]. <http://jirben2.chytrak.cz/materialy/orl_jb.doc+>.

References

- KLOZAR, Jan, et al. *Speciální otorinolaryngologie*. 1. vydání. Praha : Galén, 2005. 224 s ISBN 80-7262-346-X .
- HAHN, Aleš, et al. *Otorinolaryngologie a foniatric v současné praxi*. 1. vydání. Praha : Grada, 2007. 390 s. ISBN 978-80-247-0529-3 .