

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

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