Kurzfassung: Imaging of the larynx must be coordinated with the clinical exam. The information acquired at imaging usually emphasizes the deeper tissues as the superficial assessment is done by direct visualization. The description of the anatomy is key to description of any lesion. Several key anatomic structures are important to the radiologic assessment of the larynx. Perhaps the most important relationship in the larynx is that of the false vocal fold, true vocal fold, ventricle complex. The ventricle is a crucial reference point. Much imaging of tumors is aimed at defining the location of a lesion relative to this key landmark. Another important landmark is the upper margin cricoid cartilage. This cartilage is the only complete ring of the cartilage framework and thus is key to the integrity of the airway. Laryngeal disorders can cause a variety of symptoms, depending on the site of origin as well as the type of disease. In neonates laryngeal abnormalities such as tracheomalacia, tracheoesophageal fistula or congenital cysts are the most common cause of congenital lower airway obstruction. Another frequent congenital laryngeal abnormality is vocal cord paralysis due to peripheral or central neurologic deficits. Laryngeal infections are the most common diseases of the larynx, related to an upper respiratory tract infection. Hoarseness is a main complaint of patients suffering from a variety of laryngeal diseases including laryngeal infection. Tumors of the larynx can be separated into two categories. Most tumors of the larynx are squamous cell carcinomas and arise from the mucosa. A few tumors arise from the cartilaginous skeleton or from the other submucosal tissues. In addition trauma to the airway can obviously be life-threatening. Most patients that have a demonstrable fracture of the larynx have endoscopy looking for mucosal tears.

Lernziele:
1. To know the anatomy of the larynx
2. To understand the pattern of different lesions
3. To learn the differential diagnosis
**Kurzfassung:** According to WHO, over 5% of the world’s population – 360 million people – has disabling hearing loss (328 million adults and 32 million children). Disabling hearing loss refers to hearing loss greater than 40dB in the better hearing ear in adults and a hearing loss greater than 30dB in the better hearing ear in children. Approximately one-third of people over 65 years old are affected by disabling hearing loss. Hearing loss limits the communication ability and social activities of the patients.

In this presentation, three recent topics regarding MR imaging of the ear will be shown.

1. **Visualization of cerumen impaction (CI) in external auditory canal** is recently shown. Removal of CI improves hearing loss and sometimes improves cognitive function in patients with dementia. It is very important for radiologists to point out incidentally encountered CI on MR images.

2. **3D-FLAIR** is quite sensitive pulse sequence to subtle compositional change of inner ear lymph fluid. Subtle abnormalities not detected on T1-weighted images can be detected by 3D-FLAIR in the cases such as sudden deaf, mumps deaf, inner ear hemorrhage, Ramsay-Hunt syndrome, labyrinthine fistula by cholesteatoma and so on.

3. **Endolymphatic hydrops (EH)** is the pathological hallmark of Menière’s disease. Most MR imaging studies use intratympanic administration (IT) of Gd or double dose intravenous administration (IV) of Gd as the method for visualization of EH, in our institution IV of single dose Gd now can visualize EH clearly. Easy imaging method and representative images are shown.