LEARNING OBJECTIVES

1) To review the differential diagnosis for frequently encountered symptomatology in the head and neck. 2) To understand the information that referring physicians hope to obtain from imaging studies ordered for these presenting symptoms. 3) To describe the imaging findings of the most important entities resulting in these symptoms.

ABSTRACT

The diagnosis of hoarseness is based on clinical criteria with evaluation needed in patients with significant voice change, or limited voice change but significant other symptoms. Since hoarseness is often self-limited and has an etiology that can be detected with laryngoscopy, imaging should be reserved for the assessment of specific pathology after the larynx has been visualized. In this presentation, the role of imaging in the diagnosis and management of hoarseness will be discussed.

URL


LEARNING OBJECTIVES

1) To discuss the role of imaging in the diagnosis and management of hoarseness.

ABSTRACT

The Facial Nerve has some unique characteristics in terms of both form and function. The functions are diverse. Most of the time radiologists are asked to evaluate the facial nerve because of facial nerve paralysis. The nerve provides innervation to the muscles of facial expression. But there are other functions that we need to remember.

Anatomy: The facial nerve is composed of motor, sensory, and parasympathetic fibers. The motor fibers originate from cell bodies in the motor cortex of the frontal lobe. Fibers descend in a unique way to the lower pons where separate motor nuclei operate the lower and upper facial muscles. Injury to the cortex or descending fibers above the pontine nuclei result in central facial nerve paralysis. Peripheral facial nerve paralysis occurs when the the pontine nuclei or distal motor branches are affected. The facial nerve takes a very unique and complicated course through the CPA, internal auditory canal, temporal bone, and parotid gland to reach the end organ musculature of the face. Understanding the anatomic subsites is critical to CT and MRI evaluation of facial nerve paralysis. During this talk, the relevant anatomy of the facial nerve will be discussed.

Etiology: There are variety of etiologies that can cause facial nerve dysfunction and paralysis. Disorders can be infectious, traumatic, post-surgical, neoplastic, congenital, vascular and idiopathic. The most common cause of facial paralysis is Bell's palsy, characterized by the acute onset of unilateral facial weakness. It is likely related to reactivation of herpes simplex virus, leading to inflammation of the facial nerve. CT or MRI studies are not typically indicated in the evaluation for Bell's palsy. However, MRI may demonstrate abnormal enhancement of the intracanalicular, labyrinthine, tympanic and mastoid segments of the nerve. This lecture will review a number of etiologies that affect the facial nerve and their imaging correlates.

Imaging: MRI with gadolinium contrast enhancement is the preferred technique for evaluation of facial nerve paralysis in most cases, but CT also plays a significant role. In fact, many experts believe that MRI and CT can be complimentary in evaluation of difficult cases.

Active Handout: Phillip Randall Chapman

SPFR61C  Facial Pain

Participants
Deborah L. Reede, MD, Brooklyn, NY (Presenter) Nothing to Disclose

LEARNING OBJECTIVES
1. Review the sensory innervation of the face
2. Learn common causes of facial pain
3. Understand the role of imaging in the diagnosis and management of patients with facial pain

ABSTRACT
Imaging can play a pivotal role in identifying the source of facial pain especially when clinical findings are ambiguous due to the overlap of symptoms from different pathologies or the inability to perform a proper clinical exam in patients with trismus and/or significant soft tissue swelling. After a review of the nerves that supply sensory innervation to the face, common neurologic and non-neurologic causes of facial pain are discussed. The role of imaging in the management and treatment of these conditions will be emphasized.

SPFR61D  Diplopia

Participants
Asim F. Choudhri, MD, Memphis, TN (Presenter) Nothing to Disclose

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Asim F. Choudhri, MD - 2016 Honored Educator

SPFR61E  Hearing Loss

Participants
Gul Moonis, MD, Boston, MA (Presenter) Nothing to Disclose

SPFR61F  Tinnitus

Participants
John L. Go, MD, Los Angeles, CA (Presenter) Nothing to Disclose