Summary and Conclusion

Summary:

Facial palsy develops from various causes and the prognosis ranges from full recovery to permanent conditions. The etiology of facial palsy includes trauma, unknown causes, Human Immunodeficiency Virus infection, iatrogenic causes, tumor, congenital causes, and particularly in Bell's palsy and Ramsay Hunt syndrome.

Bell's palsy accounts for 80% of all peripheral facial palsies diagnosed annually and it is known to occur in 20 - 30 people per 100,000 per year.

Computed tomography (CT) and magnetic resonance imaging (MRI) are the basic radiological methods for evaluation of facial palsy and its causes well. HRCT is beneficial in temporal bone trauma while MRI is superior in soft tissue evaluation that enables imaging of the facial nerve itself. Therefore HRCT, and MRI have complementary role in visualization of the normal facial nerve as well as pathologic changes of the facial nerve.

Standerd MRI employs a two-dimentional (2D) spin-echo technique for axial, coronal and sometimes sagittal displays thin section images (3mm) with contrast enhancement (gadolinium or similar agents) are imperative for best examination. A newer MRI technique is three-Dimentional which allows better delineation of the facial nerve at all levels of its course.

It is reported that the labyrinthine the internal auditory canal segment of facial nerve, which is most easily enhanced in facial palsy, was never enhanced in normal facial nerve, But the geniculate ganglion, the proximal greater superficial petrosal nerve, and tympanic segment were found mostly enhanced. The facial nerve may normally be enhanced anterior and posterior to the rich arterio-venous plexus around the

geniculate ganglion, particularly in the tympanic and mastoid segments but enhancement of the distal intrameatal and labyrinthine segments is specific for facial nerve palsy but neither the pattern or intensity assist with predicting outcome of the disease.

Conclusion:

Contrast-enhanced MR imaging is recommended in the evaluation of patients with atypical or complicated facial palsy. MRI, with its increased contrast sensitivity to soft tissue disease, is uniquely suited to evaluate the nerve itself. It should be emphasized that thin section, high resolution CT scanning is still the preferred method to assess the bony contour of the facial canal, particularly in detection and characterization of facial nerve neuromas and hemangiomas. However, the internal signal intensity of the facial nerve is not appreciated on CT.