Introduction

Advances in imaging have had a considerable effect on workup of many ear, nose and throat problems. The traditional plain films and tomography gave a limited amount of information compared to the more recent advances of ultrasound, computed tomography and magnetic resonance. **(Curtin, 1988)**

Computed tomography (CT), invented by the Nobal prize-winner G.N. Hounsfield in the early 1970s, has rapidly replaced complex motion tomography and is now the study of choice for radiographic evaluation of the middle ear and mastoid. **(Mafee et al, 1988)**

Magnetic resonance imaging (MRI), invented by P.C. Lauterbur, is a new diagnostic technique that is being applied to study disease processes that involve the upper aerodigestive tract and cranial nerves of interest to otolaryngologists. As with all imaging techniques, an in-depth Knowledge of the normal anatomy of a region is a prerequisite for the appreciation of disease states. In addition magnetic resonance imaging requires a familarity with the signal intensity produced by the different structures and the relationship of that signal to various radiofrequency pulse sequences that may be used. **(Baker, 1986)**

MRI has acquired a leading role in the assessment of the posterior cranial fossa, base of the skull ,and neck. It is the study of choice for both extra-axial and intra-axial lesions in the posterior cranial fossa. **(Valvassor and Guzman, 1988)**

MRI can differentiate pathologic (Bell's palsy, facial nerve neuromas, facial nerve graft, and post-operative facial nerve paralysis site) vs. normal facial nerves based on enhancement and a change in signal intensities generated by the nerve. **(Millen et al, 1990)**

Since the introduction of magnetic resonance (MR), this tecnique has replaced CT as the optimum method of showing the extent of soft tissue tumour in the sinuses. The introduction of the paramagnetic contrast agent Gadolinium (GD DTPA) has improved its accuracy.

In the anterior fossa discrimination between cerebral oedema and tumour invasion is better shown, and in the sinuses, tumour is more easily identified from retained secretion and inflamed mucosa. **(Lloyd, 1989)**