Correlation of HRCT mastoid with clinical presentation and operative findings in ear diseases

Background: HRCT is found to be extremely useful for evaluating the ear diseases involving the external auditory canal, middle ear cavity, vertical segment of facial nerve canal, vestibular aqueduct, tegmen tympani, sigmoid sinus plate, sinodural angle, carotid canal, jugular fossa, infra and supralabyrinthine air cells and temporomandibular joint. Our main objective was to correlate the clinical presentation and operative findings of ear diseases with HRCT mastoid.

Methods: This study is done in our institute's Otoneurology dept. from April 2014 to April 2016. This is a prospective study which involves 36 patients belonging to different ages and sex groups with high suspicious of ear diseases. We have taken detailed history of each patient with complete ear nose throat examination, and after that all patients were investigated with routine blood investigation, X-ray and HRCT mastoid to correlate clinical finding and subjected for operation to compare operative findings with HRCT finding.

Results: Pearson Chi Square test indicated a statistically significant correlation between HRCT temporal bone with clinical presentation and operative findings of ear diseases [P<0.05].

Conclusion: With the advent of modern high-resolution CT scanners, detailed demonstration of temporal bone anatomy is practically possible now. We have been able to identify many significant structures not demonstrated by any of the known imaging modalities. The improved contrast and soft tissue, a definition possible with HRCT has resulted in production of excellent images of soft tissue lesions in air spaces. Hence HRCT appears to be the diagnostic modality of choice for cholesteatomas and other soft tissue lesions in middle ear.

Biography

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