SUMMARY AND CONCLUSIONS

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Normal anatomical variations of the temporal bone are not uncommon especially the area of the posterior tympanum which is highly variable , and awareness of possible variations is necessary before surgery, not only on middle ear ,but also on inner ear and posterior fossa.

The question was can the high resolution computed tomography scanning of the temporal bone exhibit the fine anatomical details ? and, hence the surgeon can depend on it prior to surgery or not .

In this study we revised the highly variable anatomy of the sinus tympani , and the neihbouring structures , data from CT were correlated to the anatomical data . advantages and disadvantages of this procedure were discussed.

It is evident from this study that the CT imaging is essential when considering an operative approach to the sinus tympani as it may extend deep, posterior to the facial canal, and access to the posterior reaches of the sinus tympani from

anterior to the facial nerve may be difficult or impossible, wherease a posterior approach may be a logical solution.

The high resolution computed tomography can tell also whether the jugular bulb is enchroaching on the middle ear cavity and labrynth or not ,the advantage which enable the surgeon not to injure it .

It is clear from this study that the high resolution CT scan is highly representative to the anatomical findings of the sinus tympani and its neihbouring structures

Based on this study we can determine three conditions when are present the retrofacial approach can be used :-

- greater A-B line
- shorter C-D line
- non enchroaching jugular bulb.

Of course not every patient going to be operated will be scanned as the cost of the CT imaging is still high but the cases going to be scanned should be choosen carefully .