An Alternate Approach to the Mastoid Antrum

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Abstract

An alternate approach to the mastoid antrum for acellular mastoid is presented.

Key Words

Surgery., Mastoid, Antrum.

The standard approaches to the mastoid antrum are through the Macewan's triangle (cortical), when it is expected to be at a depth of 1.5 cms or working backwards from the attic-attico-antrostomy. In most situations, this is not a problem. However in a acellular mastoid, there are times, when there is a low lying dura or a forward lying sigmoid sinus. These may be exposed accidentally by the standard cortical approach. Occasionally one encounters a Kerner's septum. There are certain times in the surgery of chronic otitis media tubo-tympanic type, the mastoid antrum needs to be looked into for any evidence of disease. In order to take care of these situations an alternate approach to the mastoid antrum is suggested, as shown in the figure 1 by +, lateral and superior to the tympano-mastoid suture line, on the posterior canal wall.

In this approach, the mastoid antrum is closer to the point of drilling, the depth is about 0.5 cm or less, the middle ear is kept in view after the tympanomeatal flap is raised and kept anteriorly. Since the incus or the remnant of the incus is in view it is easier to locate the antrum anatomically. The advantages to this approach is that minimal exposure of the bone is required. At least about 0.5 cm of the posterior bony canal wall from the annulus outwards is left intact and the scutum need not be touched. The drilling area is very much anterior to the sigmoid sinus, below the dura and supero-lateral to the tympano-mastoid suture line and hence the

facial nerve. Hence the chances of accidental exposure of the dura, sigmoid sinus, facial nerve and short process of the incus are very minimal. This approach is comparatively faster due to the shorter distance to the mastoid antrum and hence useful for check antrostomy. In the event of disease, the opening can be

Fig. 1 shows the temporal bone, Macewan's triangle-1, Tympanomastoid suture line 2, Tympanic membrane-3 and the suggested point of drilling +

expanded laterally, posteriorly, superiorly and anteriorly into the attic, according to the disease. The bony defect in the posterior canal wall thus caused by the drilling can be easily covered by the returning tympanomeatal flap with or without a temporalis fascia graft support.