

Surgical Findings in Revision Radical Mastoidectomy

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Objective: To assess the intra-operative findings and the long-term results of 91 revision surgeries performed for failure after cholesteatoma surgery.

Design: Retrospective study.

Setting: King Abdul-Aziz University hospital, (KAUH).

Method: The medical records of ninety-one patients who had undergone mastoidectomy revision operations over 10 years period were reviewed, and the data were extracted and analyzed. The indications for revision were recurrent cholesteatoma and persistent otorrhea.

Result: Ninety-one patients were included in the study; twenty-nine were females and sixty-two were males, ages ranged from 6 to 63 years. Revision mastoidectomies were performed in canal wall down (CWD) mastoidectomies. Sixty-six (72.5%) had recurrent or residual cholesteatoma, 61 (67%) had narrow external canal and 44 (48.35%) had high facial ridge.

Infected not exenterated mastoid air cells were found in 49 patients (53.8%), involving closed supratubal recess in 26 (53%), persistent sinodural angle air cells and persistent mastoid apex air cells in 13 (26.5%) and persistent tegmental air cells in 10 (20.4%). After an average of 10 years follow up of revision mastoidectomy, 79 (87%) cases had dry and healed cavities.

Conclusion: Incomplete removal of infected mastoid air cells and incomplete aeration of the mastoid cavities are the most important factors in failure of the primary surgery. Successful CWD mastoidectomy requires removal of all diseased air cells.

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