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Innovation in otology: Stability of ossicular reconstruction

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Objectives: To describe a modified technique of titanium prosthesis stabilization in ossicular chain reconstruction during ear surgery, and to evaluate the outcome of this technique.

Methods: A retrospective study done at a tertiary referral institute Included 133 cases of all ossiculoplasties performed between August 2013 and August 2015. We are suggesting a new technique for ossiculoplasties mechanical stability using Vario Kurz titanium prostheses by: Partial Ossicular Replacement Prosthesis (PORP) is crimped on the head of stapes and Total Ossicular Replacement Prosthesis (TORP) is coupled to the footplate by cartilage shoe. Both prostheses were coupled to the drum by embedding a pin on the headplate of prosthesis in a full thickness broad cartilage palisades graft. After packing of the ear canal, the stability of reconstruction was checked using 30 degree scope placed in the mastoid. Preoperative and postoperative audiometric evaluation using air-bone gap were assessed. Results are compared with historical control groups.

Results: The study included 133 patients, of which 88 underwent PORP reconstruction and 45 underwent TORP reconstruction. Mean follow-up was 14 months. A postoperative air-bone gap (ABG) ≤ 20 dB was obtained in 75.9% of the patients (79.5% for PORP, and 68.8% for TORP).

Conclusions: A robust prosthesis stability leads to a better ossicular coupling and more satisfactory hearing outcome compared to conventional techniques

Biography

Zaid Jawad Abu Rajab Altamimi graduated from MU'TAH University Medical College, Jordan in 2010 with honors. He had research and observership experience at University of Toledo, Ohio for 10 months after finishing his internship. Currently, he is pursuing Postgraduate Residency training accredited by ACGMEi (Accreditation Council for Graduate Medical Education international) in Otorhinolaryngology and Head & Neck Surgery at Hamad Medical Corporation, Doha, Qatar where he has also developed a keen interest in both basic and clinical research. He has several presentations in international conferences.

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