

البحث الثالث

عنوان البحث باللغة الانجليزية :

Audiological comparison between two different clips prostheses in stapes surgery

Objectives: To compare audiometric results and complications of stapes surgery with two different types of piston prosthesis, the Portmann Clip Piston (Medtronic) (PCP) and the Soft Clip Piston (Kurz) (SCP). **Material and methods:** Study conducted on 64 patients who underwent primary stapedotomy from 2008 to 2011. We matched for each case of stapedotomy with the PCP (Medtronic Xomed Inc. Portmann Clip Piston Stainless steel/Fluoroplastic) a case with the SCP (Heinz Kurz GmbH Medizintechnik Soft Piston Clip Titanium). Each group consisted of 32 patients, and patients in both groups were matched with respect to gender, age, bilateral or unilateral otosclerosis, otological symptoms (tinnitus, vertigo or dizziness), family history, operated side and the Portmann grading for otosclerosis. The length of the prosthesis used was reported. Post-operative complications such as tinnitus, vertigo, hearing loss and altered taste were documented. Each patient was subjected to a preoperative and postoperative audio gram (follow-up at the second month after the surgery). We used the Student test for statistical analysis. Statistical significance was set at < 0.01 . **Results:** None of the patients experienced a post-operative hearing loss and none required a later revision surgery. No statistically significant difference was found between the two populations regarding demographic data (age, sex, side, bilaterality, family history, stage and length of piston) and hearing level (> 0.01) in the air, bone conduction and air-bone gap (ABG). Postoperative complications did not result to be significantly different between the two groups. Also, both groups showed a significant improvement (< 0.01) in the post-operative air, bone conduction and air-bone gap. There was no statistically significant difference (> 0.01) between the post-operative hearing results (bone conduction, air conduction, air-bone gap) using the two pistons. The mean ABG improvement was respectively 16.63 dB in the SCP group and 20.59 dB in the PCP group. **Conclusion:** The titanium Soft clip piston (SCP) is a good alternative to the Portmann clip piston (PCP). Nevertheless there are some differences in the surgical fixing of these two pistons in the correct position.