Total and partial ossiculoplasty in children: Audiological results and predictive factors

Dr. Moumain ABOUZAYD ; Dr. Julie DUMONT ; Dr. Solik PONDAVEN-LETOURMY ; Pr. Emmanuel LESCANNE
TOURS UNIVERSITY HOSPITAL, TOURS, FRANCE

“Total ossiculoplasty leads to better results when performed during first-stage procedure (OR:5.8 ; p=0.01).”

“Partial reconstruction prosthesis provides better functional outcomes than total.”

Objective
To assess ossiculoplasty results in children and search for effectiveness predictive factors.

Methods
We included 75 children who underwent ossiculoplasty between 2001 and 2014 in Tours University Hospital pediatric ENT department, France. Primary judgment criteria was rate of patients with Air Conduction (AC) average threshold < 30 dB at mid-term follow up (M12-M18). Secondary judgment criteria was rate of patients with Air-Bone-Gap (ABG) closure < 20 dB at mid-term follow up (M12-M18).

Results
48 children where included in the Total Ossicular Reconstruction Prosthesis (TORP) group. The mean age at surgery was 9.9 years. Primary judgment criteria was achieved in 68%. Secondary judgment criteria was achieved in 40%. A significant statistical relation was found between success rate and a past medical history free of tympanoplasty (OR:5.8 ; p=0.01).

Conclusion
Our study suggests that total ossiculoplasty leads to better results when performed during first-stage procedure. Moreover, it confirm that partial reconstruction prosthesis functional outcomes are better than total.

27 children were included in Partial Ossicular Reconstruction Prosthesis (PORP) group. The mean age was 9.5 years. Primary and secondary judgment criteria were achieved in 75%.

Percentage of patients with air-bone-gap (ABG) < 20 dB and air conduction (AC) thresholds < 30 dB according to postoperative period.