

Zastosowanie techniki palisadowej w tympanoplastykach według Heermanna

The use of palisade technique in tympanoplasties after Heermann

Romuald Wielgosz, Edward Mroczkowski

Summary

Introduction: The palisade tympanoplasties-technique with using of tragal and conchal autografts for reconstruction of the tympanic membrane and the auditory canal wall was described. **Material and methods:** The operation started with the endaural incision. Tragal and conchal autograft palisade fragments with perichondrium for reconstruction of the tympanic membrane and the auditory canal wall have been used up to 1996 in 15 300 cases. We placed palisaded cartilage fragments parallel to the manubrium of the malleus in type I tympanoplasties and in type II or III procedures parallel to the long process of the incus. The „tunnel plasty” in the eustachian tubal entrance is performed with „simmering”, „architrave” and „anti-architrave” to keep the tubal entrance open. This „tunnel plasty” results in a nice reconstruction of the tympano-meatal niche. The „annulus-stapes plate” in type III tympanoplasties replaces the function of the incus, crossing the promontory and reducing adhesions. This annulus-stapes bridge is fixed with a further palisade cartilage, „step plasty”, which connects the „tunnel-plasty” with „annulus-stapes plate”. The palisade-epitympanum-antrum plasty allows ventilation of the antrum via a tunnel constructed of well-fitting parallel pieces of cartilage fixed by self-tension (no glue) and replacing the bony canal wall. The „columella-tunnel plasty” has an L-shaped notch in the „annulus-stapes plate” fixing a columella of cartilage, placed in the oval window. Only in a case with a narrow oval window niche, a type IV palisade plasty can be performed or a prosthesis placed. **Results:** The „annulus-stapes cartilage plate” is more stable reconstruction in type III tympanoplasties than are incus of foreign body interpositions. Adhesions on the promontory are found more often with fascia than with cartilage fragments. Histologic study of autograft cartilage showed good preservation of cartilage cells even 26 years after trans-plantation. **Conclusions:** The use of palisade cartilage technique brings very good functional and better long-term results.