

ABSTRACTS

KURZ IMPLANTS, PRECISION INSTRUMENTS, VENTILATION TUBES

MIDDLE EAR SURGERY

NITIFLEX

Initial experience with the NiTiFLEX® Stapes Prosthesis

Zirkler J., Rahne T., Plontke S.

Published: 86th Annual Meeting of the German Society for Oto-, Rhino-, Laryngology, Head and Neck Surgery. Berlin, May 13-16, 2015. Poster Abstract (German) DOI: 10.3205/15hnod534

Introduction: The attachment to the long process of the incus is the most important part of stapes surgery. We report here on our initial experience with the new NiTiFLEX Stapes Prosthesis, a development of the Soft Clip® Stapes Prosthesis (Kurz). The clip is now made of nitinol, a nickel- titanium alloy. The contact pressure on the long process of the incus has been further reduced and the attachment to the long process of the incus should be simplified.

Method: A stapedioplasty was done in 11 patients (6f, 5m) (a revision operation). The average age of the patients was 45 years. The footplate was perforated by a CO2 laser (scanning mode).

Results: The NiTiFLEX Stapes Prosthesis could be placed in all patients without complications. There was no significant change in bone conduction after the operation. The sound conduction gap could be satisfactorily reduced in all patients. (4PTA 0.5-4 preoperative on average 23.6, postoperative 6.3 dB). We considered the handling of the prosthesis to be very good.

Conclusion: When considering the limited experience, the NiTiFLEX Stapes Prosthesis is a promising development of the (Soft) Clip technique. The audiological results of the small series of cases are very satisfactory and comparable with other prostheses. However, long-term results with a greater number of cases are still necessary.

Initial experience with the NiTiFLEX® Stapes Prosthesis at the ENT Hospital Erlangen

Brase C., Pohmer S., Stockmayer N., Iro H., Hornung J.

Published: 86th Annual Meeting of the German Society for Oto- Rhino- Laryngology, Head and Neck Surgery. Berlin, May 13-16, 2015. (German) DOI: 10.3205/15hnod316

Introduction: One of the most important steps in stapes surgery is fixing the stapes prosthesis to the long process of the incus. In recent times great efforts have been made to simplify this step with "self-fixing" prostheses. This paper reports on our initial experience with the Kurz NiTiFLEX Stapes Prosthesis.

Material and Methods: A total of 16 NiTiFLEX prostheses was implanted between 8/2014 and 11/2014. All operations were performed under full an-esthesia. The preoperative air-bone gap at 0.5, 1, 2 and 4 kHz was compared with the postoperative air-bone gap after an average of one month and after about 3 months.

Results: During the operation it was shown that the prosthesis was not well attached to all processes of the incus. In three cases the prosthesis could not be fixed during the operation due to the thickness of the process of the incus and had to be removed. The audiological results for the patients in whom the prosthesis could be fixed were comparable with those of other self-fixing prostheses.

Conclusion: The NiTiFLEX Stapes Prosthesis can be fixed without difficulties to normally shaped processes of the incus and yields good postoperative audiological results. As a development of the well-known SoftClip prosthesis with superelastic material, the NiTiFLEX prosthesis should be suitable for a wide range of processes of the incus. However, due to the relatively small prosthesis eyelet, it cannot be used for every anatomical variation of the long process of the incus.