

Results: 142334 people were screened in the year 2014 in which 10248 suffered from hearing loss. Prevalence of hearing loss was 7.2%. 9310 patients were managed conservatively. Surgery was performed in 506 cases and hearing aid was provided to 432 cases.

Conclusion: This study emphasizes that through the introduction of concept of ear care workers, a large number of unprivileged patients with treatable causes of hearing loss can be provided with appropriate, cost effective and early treatment.

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Ossicular Implants (Prosthesis) – from Infancy to Maturity

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Learning Objectives: The idea of ossicular chain reconstruction emerges and develops as a result from the creation of Wulstein and Zollner's concept of tympanoplasty. Initially, doing the ossicular reconstruction a transposition of incus mainly is performed. Bone or cartilage material has been used as a material. In 1956 Wulstein reported the use of a vinyl-acrylic device as acoustic transmitter between the mobile footplate and the tympanic membrane graft. However, the results were poor. Shea moved from the concept of a graft to that of a bioprosthesis. Shea first began a successful series of ossicular reconstructions. Shea first implanted Teflon prosthesis on a 48-year-old female patient who had widespread otosclerosis, throughout the oval window rim and footplate. As a result, the patient's hearing improved. Today the implantation of ossicular prostheses to replace non-functional and pathologically altered ossicular chain is a well-accepted surgical technique. The limited graft applications in the reconstructive auditory-chain surgery stimulated the search for new prosthetic medical device. Several questions are of paramount interest for solving this problem: 1. Biomaterial selection for the ossicular implants (prosthesis) construction; 2. Design of the ossicular implants (prosthesis); 3. Validation of the ossicular implants (prosthesis); 4. Monitoring of the patients with implanted ossicular prostheses. In modern otosurgery, a large variety of biomaterials were made use. None of them is, however, useful for any applications. In general, the biomaterials used for ossicular chain reconstruction should possess a good biocompatibility and biostability. They must be well osteointegrated, with

minimal risk of ankylosis. Surface properties, particularly structural characteristics, critically influence the quality of the implant-biological interface. The biomaterials need to be easily processed and retain their shape already acquired. A proper sound transmission requires biomaterials of low mass and high hardness. None of them is, however, useful for any applications. In the literature available, usage of different animals for biomaterial validations has been reported. In experiments on the guinea pigs bulla mastoidea model, introduced in the experimental medical practice from Assoc. Prof. Mario Milkov, MD, Ph.D., gold, Teflon, hydroxyapatite, and ceromer were used convincing us in the good qualities of the guinea pig to serve as a model for testing the ossicular prostheses.

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Diagnosis and successful surgical treatment of pediatric cholesteatoma: a case report and literature review

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