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Optimization of opposite ear masking in CI patients with unilateral deafness: development of a measurement method to determine the individual masking level

Checking the success of treatment after cochlear implantation (CI) for single side deafness (SSD) poses particular challenges for the audiologist: Ideally, only the function of the implanted ear should be tested. In free-field audiometry, Masking of the contralateral ear with normal hearing is essential for this. In everyday clinical practice, finding the adequate level of masking often proves to be challenging (sufficient masking without noise trauma). The aim of this study is to develop a suitable measurement setup with which the individually required masking level of the opposite ear can be precisely determined in CI patients with SSD and to compare speech comprehension using this individual masking level with defined standard masking levels. A total of 10 SSD-patients were examined after CI. The results showed that the standardized measurement method is not sufficient, but a higher masking level shoud be applied.