Tilmelding af Foredrag

Foredragets titel

Evaluation of Replacement Hearing Aids with Hearing in Noise Test (HINT) in Cochlear Implant candidates prior decision of CI surgery

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Introduktion

Understanding speech in noise causes high levels of increased sustained effort resulting in feelings of fatigue. Understanding speech in challenging hearing environments results in increased auditory and cognitive processing which might be observed objectively by measuring the pupil dilation during speech perception in noise, in a task (Hearing In Noise Test) HINT.
Replacement hearing aids before decision on a cochlear implant, candidates may improve speech intelligibility and decrease listening effort thus postpone or even withdraw the decision of CI surgery.

Materiale/metode

The aim of this study was to investigate changes in signal to noise ratio (SNR) if listening effort is constant.
A sample of 10 bilateral HA users referred for CI, aged 23-82 years performed a Danish HINT with old and new HAs wearing pupil glasses from Oticon Medical. HINT was performed at two test sessions. Session one: an adaptive SNR of 70% correct word recognition score at 65 dB SPL. Session two: a fixed SNR identified by the adaptive test.

Resultater

In this preliminary study 2 out of 10 patients showed a clear improvement in SNR with a mean difference of 18 dB (SD4,2 dB) and one patient with slightly decrease in performance.
7 out of 10 patients showed only a change in SNR of -4 dB to +2 dB with a mean difference of 0,14 dB (SD=2,0 dB). When comparing old HAs with new HAs we found a non-significant improvement of -2,8 dB (95% CI -8,9 – 3,3, p=0,16)

Diskussion

Even though the SNR using HINT was not improved significantly with replacement HAs, we found a trend of improved SNRs with constant listening effort with replacement HAs.

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