Aural Microphonics in Man

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We have succeeded in obtaining aural microphonics from 7 out of 9 patients whom we used for our experiments.

6 patients were operated upon for otitis media chronica. Three had to undergo stapes mobilization.

The first two measurings failed because of insufficient precautions. The sound volume of aural microphonics in man is probably 20 to 50 times less than, e.g., in a cat.

For a stimulator a Schallsonde is used, manufactured from a modified crystal microphone.

Good grounding and isolation are indispensable.

Our measurings have been done in an ordinary operation theatre, which was not isolated, nor was the patient.

The diathermy in the operation theatre has to be switched off during the measurings.

The sensitive electrode is brought into the round window. Via the electrical instruments it is possible to reproduce aural microphonics, visibly on the screen of the oscilloscope, audibly via ear phones.

The Schallsonde is powered by 1,000 cycl./sec; volume about 60 dB. As soon as the sonde has been placed on the promontorium and near the windows, the microphonics can, via ear phones, also be heard by the operating surgeon. Artificial closure of the windows causes a decrease of sound.

Measurings can

for the time being

only be qualitative. With two of the three patients

on whom stapes mobilization was performed

a measurable improvement could

in this way

be registered electrically. With these two patients

also

a distinct improvement could be shown on the post-operative audiogram.