

## **Abstract EFAS/DGA 2007**

### **Remote Fitting of Cochlear Implant System**

Wasowski, A., Lorens, A., Obrycka, A., Putkiewicz, J., Skarzynski, H.

International Center of Hearing and Speech of the Institute of Physiology and Pathology of Hearing, Kajetany Mokra 17, 05-830 Nadarzyn, Poland

#### **Objectives:**

Optimal fitting of cochlear implant system is necessary for implanted patients to obtain maximum possible hearing benefits. Fitting of the system usually requires frequent visits in cochlear implant center and repetitive fitting session.

Development of informatics and telecommunication technologies, especially the Internet, opens new possibilities. New internet communication and videoconferencing applications allows remote fitting with use of internet connection. This possibility may prove to be very useful in clinical practice.

The aim of this study was to assess usefulness and safeness of remote fitting via internet connection.

#### **Methods:**

Material of the study consists of 19 adult cochlear implant users, implanted in the Institute of Physiology and Pathology of Hearing. The patient is connected to the clinical interface on distant computer. The specialist, using remote desktop application, takes control over distant computer, and performs fitting and electrical hearing tests. Patients satisfaction questionnaire is used for comparison of remote fitting and standard fitting methods.

#### **Results:**

The setup for remote fitting and experiences of application of new technology was described. Patient's satisfaction, quality and time effectiveness of the new method were evaluated. Risk of using this technology, connected with danger of overstimulation, connection breakdowns etc. was also assessed.

#### **Conclusions:**

Based on the results, remote cochlear implant system fitting seems to be a useful and safe technology, which could be used in clinical practice.

