

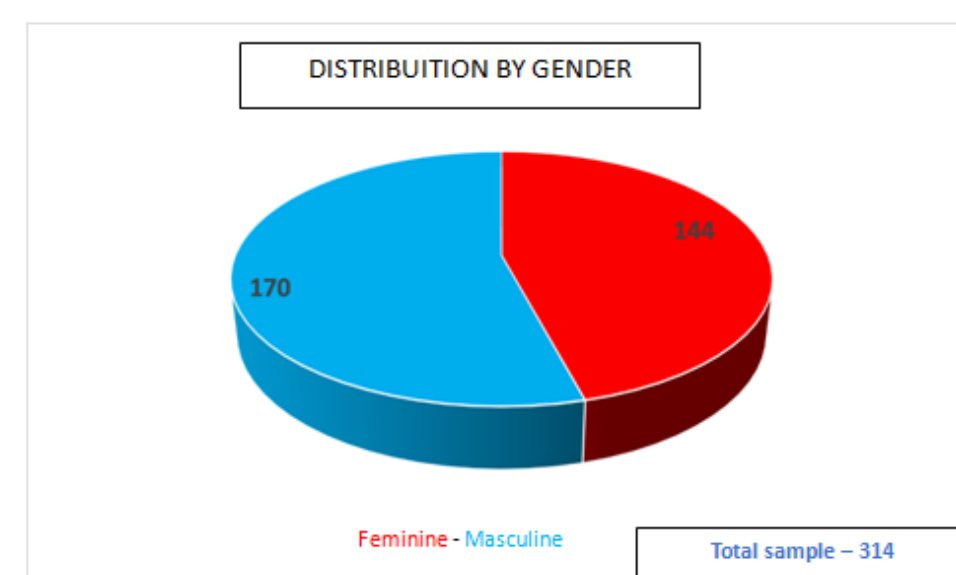
Adults using Cochlear Implant: Assessment of Hearing and Speech Perception

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Abstract

The cochlear implant is an efficient and effective means in the process of auditory rehabilitation in individuals with severe to profound sensorineural deafness and allows the individual to recover their hearing and perception of speech. After cochlear implantation, there is a need to evaluate hearing and speech perception in order to analyze the benefit obtained with the use of the CI. This study consisted of 314 adults with severe to profound sensorineural deafness, 170 males and 144 females, aged between 18 years and 83 years, with an average of 53 years of age, deployed in



Objectifs

This study aims to analyze and present the results obtained through the assessment of hearing and speech perception, carried out during the year 2023, in adults implanted in the ULSCoimbra.

Méthodes et Matériels

All individuals underwent an audiological assessment, with a free-field tonal audiogram and a free-field vocal audiogram using a list of monosyllables, disyllables, numbers and phrases and a speech assessment using the Vocal Characteristics Assessment Grid (GACV), Speech intelligibility ratio, Auditory performance categories (CAP) Telephone sentence test and the 100 words repetition test.

Résultats

The data showed an average hearing threshold of 31dB with CI and in the vocal evaluation, obtained in a free field at 65dB SPL, we found that: in the list of monosyllables, we obtained an average of 60% correctly repeated words, regarding the number of phonemes we obtained 72% repeated phonemes, In the number test we obtained 100% correctly repeated words and 100% correctly repeated phonemes. In the telephone sentence test, 185 individuals got more than 75% of correctly repeated words correct with an average of 82%. In the GACV and SIR test 280 individuals obtained the maximum score (5) in their evaluation, in the evaluation with the CAP, 134 individuals obtained a score of 9 values and 105 obtained 7 points, in relation to the 100 word repetition test 232 individuals obtained more than 75% of words repeated correctly, obtaining an average of 88%.

The results show that understanding monosyllables is more difficult than numbers and sentences, as the Portuguese language is mostly made up of disyllables, the discrimination of monosyllables becomes more complex, as numbers are better understood as they are more used in everyday life. Regarding speech assessment and word comprehension tests, the vast majority of adults present above average results, indicating good auditory word perception skills.

Conclusion

The results allow us to conclude that the CI is a very efficient and effective means in the adult auditory rehabilitation process, enabling the individual to have access to the world of sounds and the understanding and discrimination of words, have a professional and socially active life, as well as an improvement in quality of life.

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