

# Ocena skuteczności leczenia pacjentów z szumami usznymi za pomocą krioterapii ogólnoustrojowej

Evaluation of effectiveness of whole-body cryotherapy in patients with tinnitus

*Agnieszka Kamińska-Staruch, Jurek Olszewski*

## Summary

**Introduction.** The aim of the study was evaluation of effectiveness of whole-body cryotherapy in patients with tinnitus. **Materials and methods.** The research was carried out in 120 patients (aged 20-68) with tinnitus, divided into two groups: I - 80 patients treated by cryotherapy and II - 40 patients non treated. There were: 73 women and 47 men. Among patients of I group: 39 reported bilateral tinnitus, 20 reported right tinnitus, 15 reported left tinnitus and 6 reported tinnitus in head. Duration of the ailment took from 1 month to 23 years. The methods included: taking a history, otolaryngological physical examination, audiometry establishing level of tinnitus, medical consultation, X-ray examination of chest and cervical spine and CT of head. After examinations and additional consultations the patients were qualified for cryotherapy unless there were some contraindications. The patients underwent 10 procedures in two cycles with the weekend break. They were in cryochamber in temperature of  $-110^{\circ}\text{C}$  for 3 minutes. After cryotherapy they used kinesitherapy for 45 minutes. Intensity and troublesomeness of tinnitus was evaluated using self-assessment chart (point scale 0-100) and audiometry establishing level of tinnitus before and after treatment. **Results.** The results indicates complete elimination of tinnitus in 4 patients, decrease in their intensity in 47 patients, maintenance of the ailment on the same level in 13 people and slightly increase of tinnitus in 16 patients. In audiometry we could observe in I group changes in frequency of tinnitus in 138 ears and changes in intensity of tinnitus in 91 ears. After treatment decrease of average hearing loss and average hearing damage were observed. **Conclusions.** Treatment of tinnitus may be effective by using whole-body cryotherapy.