

Hyperbaric oxygen therapy as a therapeutic option in cochlear implants extrusion treatment in infected wounds

Pedro Clarós¹, Natalia Końska², Astrid Clarós-Pujol¹, Carmen Pujol¹, Andrés Clarós¹
Affiliations expand

- PMID: 32223698
- DOI: [10.1080/00016489.2020.1744721](https://doi.org/10.1080/00016489.2020.1744721)

Abstract

Background: Cochlear implant extrusion as a result of infection is an uncommon, but serious complication, which can lead to implant removal as the ultimate solution.

Objectives: (1) to identify the incidence of cochlear implant extrusion and its causes, (2) to report our management of patients presenting skin complications after cochlear implant surgery (3) to propose new therapeutical options with hyperbaric oxygen therapy (HBOT). **Materials and methods:** A retrospective analysis of medical documentation of 1250 patients who were operated on with cochlear implants in our department between 1993 and 2015. The medical charts of 25 patients were selected due to reported skin flap complications resulting in CI extrusion. Five of those patients were subsequently removed from the study because of no infection signs. **Results:** Non-traumatic cochlear implant extrusion occurred in 1.6% of implanted patients, and secondary treatment was effective in 90% of all cases (18 of 20 patients). HBOT as additional treatment was applied in 9 patients. **Conclusions:** Hyperbaric oxygen therapy can be considered as safe adjuvant treatment option in individual cases of proceeding with cochlear implant extrusion with signs of wound infection. **Significance:** HBOT may contribute to reducing the need for cochlear implant explantation due to infectious skin flap complication.

Keywords: Hyperbaric oxygen; cochlear implant extrusion; wound healing.