

Improving Clinical Outcomes in Cochlear Implantation Using Glucocorticoid Therapy: A Review

Por: [Fuentes, IAC](#) (Fuentes, Ignacio A. Cortes)^[1,2]; [Pierre, PV](#) (Pierre, Pernilla Videhult)^[3]; [Berglin, CE](#) (Berglin, Cecilia Engmer)^[2]

[Ver número de ResearcherID y ORCID de Web of Science](#)

EAR AND HEARING

Volumen: 41

Número: 1

Páginas: 17-24

DOI: 10.1097/AUD.0000000000000740

Fecha de publicación: JAN-FEB 2020

Tipo de documento: Review

[Ver impacto de la revista](#)

Abstract

Cochlear implant surgery is a successful procedure for auditory rehabilitation of patients with severe to profound hearing loss. However, cochlear implantation may lead to damage to the inner ear, which decreases residual hearing and alters vestibular function. It is now of increasing interest to preserve residual hearing during this surgery because this is related to better speech, music perception, and hearing in complex listening environments. Thus, different efforts have been tried to reduce cochlear implantation-related injury, including periprocedural glucocorticoids because of their anti-inflammatory properties. Different routes of administration have been tried to deliver glucocorticoids. However, several drawbacks still remain, including their systemic side effects, unknown pharmacokinetic profiles, and complex delivery methods. In the present review, we discuss the role of periprocedural glucocorticoid therapy to decrease cochlear implantation-related injury, thus preserving inner ear function after surgery. Moreover, we highlight the pharmacokinetic evidence and clinical outcomes which would sustain further interventions.

Palabras clave

Palabras clave de autor: [Cochlear implantation](#); [Drug delivery](#); [Glucocorticoids](#); [Hearing preservation](#); [Inner ear pharmacokinetics](#)

KeyWords Plus: [RESIDUAL HEARING PRESERVATION](#); [MODIFIED ELECTRODE SURFACES](#); [LOW-FREQUENCY HEARING](#); [LOCAL-DRUG DELIVERY](#); [INTRAVENOUS DELIVERY](#); [INNER-EAR](#); [POSTOPERATIVE IMPEDANCES](#); [CONCENTRATION GRADIENTS](#); [DEXAMETHASONE PROTECTS](#); [HYALURONIC-ACID](#)

Información del autor

Dirección para petición de copias: Berglin, CE (autor para petición de copias)

+ Karolinska Univ Hosp, Dept Otorhinolaryngol, B53, S-14186 Stockholm, Sweden.

Direcciones:

- + [1] Univ Chile, Hosp San Juan de Dios, Dept Otorhinolaryngol, Santiago, Chile
- + [2] Karolinska Inst, Div Ear Nose & Throat Dis, Dept Clin Sci Intervent & Technol, Stockholm, Sweden
- + [3] Karolinska Inst, Div Audiol, Dept Clin Sci Intervent & Technol, Huddinge, Sweden

Direcciones de correo electrónico: cecilia.engmer-berglin@sll.se

Editorial

LIPPINCOTT WILLIAMS & WILKINS, TWO COMMERCE SQ, 2001 MARKET ST,
PHILADELPHIA, PA 19103 USA

Información de la revista

- **Impact Factor:** [Journal Citation Reports](#)

Categorías / Clasificación

Áreas de investigación: Audiology & Speech-Language Pathology; Otorhinolaryngology

Categorías de Web of Science: Audiology & Speech-Language Pathology; Otorhinolaryngology

Información del documento

Idioma: English

Número de acceso: WOS:000507327400003

ID de PubMed: 31045652

ISSN: 0196-0202

eISSN: 1538-4667