

# Adverse Effects of Steroid Therapy in Sudden Sensorineural Hearing Loss: A Scoping Review

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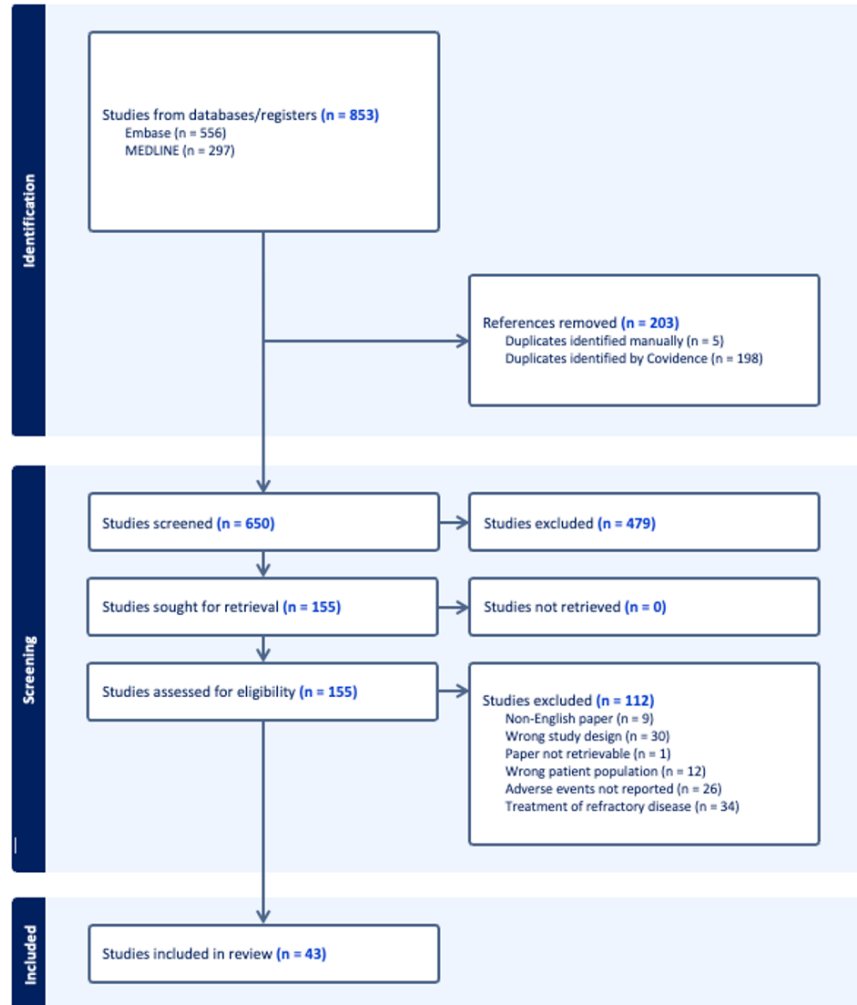
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## Abstract

Objective Sudden sensorineural hearing loss (SSNHL) is an otologic emergency and treated with steroid therapy. Despite adverse events (AEs) associated with long term steroid use being well evidenced, there is sparsity of literature regarding the AEs of short-course prescriptions in the SSNHL cohort, which limits the quality of patient counselling and informed consent. Method A literature search was performed on the Medline and Embase databases for studies assessing AEs in adults with SSNHL managed with oral (OST), intratympanic (ITS) and intravenous steroid therapy (IVS). Two authors screened titles, abstracts, and full-text articles, with conflicts resolved by a third reviewer. Forty-three papers were included. Results In systemic steroid therapies, hyperglycaemia and hypertension are reported in up to 29.8% and 37.9% of patients respectively. Patients with medication-dependent diabetes and hypertension are at higher risk. Gastric and mood disturbances affected up to 27.9% and 44.6% of patients respectively. ITS carried risks of otalgia (up to 54.3%), dizziness (up to 27.1%), perforations (up to 11.5%), and otitis media (up to 4.7%). Conclusion Comprehensive counselling is key in obtaining informed consent, especially in cohorts with diabetes mellitus (DM) and hypertension where monitoring of glucose and blood pressure is recommended. Gastroprotection should be considered. Future focus is required to study short-term steroid AEs and raise awareness amongst prescribing clinicians and patients.

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T09 - Combined Therapy arm.docx available at <https://authorea.com/users/847830/articles/1235531-adverse-effects-of-steroid-therapy-in-sudden-sensorineural-hearing-loss-a-scoping-review>

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T11 - Huang 2011 adverse events (combination).docx available at <https://authorea.com/users/847830/articles/1235531-adverse-effects-of-steroid-therapy-in-sudden-sensorineural-hearing-loss-a-scoping-review>

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T13 - Summary of adverse events.docx available at <https://authorea.com/users/847830/articles/1235531-adverse-effects-of-steroid-therapy-in-sudden-sensorineural-hearing-loss-a-scoping-review>