

INPLASY

Audiovestibular Dysfunction in Systemic Lupus Erythematosus Patients: A Systematic Review

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 June 2024 and was last updated on 12 June 2024.

INTRODUCTION

Review question / Objective Will there be any audiovestibular dysfunction associated with systemic lupus erythematosus?

Rationale Audiovestibular dysfunction in patients with systemic lupus erythematosus has been underestimated for decades. Systemic lupus erythematosus can affect both the auditory and vestibular systems simultaneously. Several potential pathophysiological mechanisms behind systemic lupus erythematosus-related audiovestibular dysfunction have been proposed, including antibody-mediated immune responses, cell-mediated cytotoxicity, immune complex deposition in microvessels, central involvement in the audiovestibular pathway, and ototoxicity from medications used in systemic lupus erythematosus treatment. Currently available tests to evaluate

audiovestibular function in systemic lupus erythematosus patients are neither specific nor sensitive. Nevertheless, there is no consensus regarding the efficacy of treatments for audiovestibular dysfunction in such patients.

Condition being studied In this review, we have summarized the currently available evidence on the characteristics, pathophysiology, examination, and treatment of audiovestibular dysfunction related to systemic lupus erythematosus.

METHODS

Search strategy This systematic review was conducted by electronically searching the PubMed and other platforms.

Participant or population Patients with systemic lupus erythematosus.

Intervention Not specific.

Comparator Healthy controls.

Study designs to be included Case reports/series, observational trial, case-control trial, or randomized controlled trials.

Eligibility criteria (a) articles that examined the aforementioned audiovestibular issues in patients with SLE; (b) articles could be case reports/series, observational trial, case-control trial, or randomized controlled trials; and (c) articles recruiting patients with SLE.

Information sources The eligible information could be derived from electronic databases, or contact with authors.

Main outcome(s) Data about the characteristics, pathophysiology, examination, and treatment, in patients with systemic lupus erythematosus.

Additional outcome(s) Prognosis.

Data management We manage data via direct input into the manuscript discussion.

Quality assessment / Risk of bias analysis All the clinical studies were graded by Jiann-Jy Chen and Ping-Tao Tseng, via the Newcastle-Ottawa Scale.

Strategy of data synthesis Not done.

Subgroup analysis Not done.

Sensitivity analysis Not done.

Language restriction No.

Country(ies) involved Taiwan.

Other relevant information None.

Keywords systemic lupus erythematosus; cochleopathy; vestibular; sensorineural hearing loss; treatment.

Contributions of each author

Author 1 - Ping-Tao Tseng - This author contributed significantly in study design, concept formation, and manuscript review and revision.