**Systematic review (PRISMA)**

**Research in Vestibular Science: article title**

Identify the report as a systematic review.

**ABSTRACT**

The abstract should be within 250 words. Use neither bibliographic references nor references to figures or tables in the Abstract.

**Objectives:** Provide an explicit statement of the main objective(s) or question(s) the review addresses.

**Methods:** Specify the inclusion and exclusion criteria for the review. Additionally, specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched. Clarify the methods used to assess risk of bias in the included studies. Moving on, delineat the methods used to present and synthesize results.

**Results:** Give the total number of included studies and participants and summarize relevant characteristics of studies. Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval, and when comparing groups, indicate the direction of the effect.

**Conclusions:** Provide a brief summary of the limitations of the evidence included in the review, and then present a general interpretation of the results and important implications.

**Keywords:** Aaaaaa; Baaaaaaa; Caaaa; Daaaaaa

Three to six keywords should be listed. MeSH (https://www.ncbi.nlm.nih.gov/mesh/) is preferred for the keyword selection.

**INTRODUCTION**

In the Introduction section, describe the rationale for the review in the context of existing knowledge. Provide an explicit statement of the objective(s) or question(s) the review addresses.

References must be numbered with superscripts according to their quotation order. When more than two quotations of the same authors are indicated in the main body, a comma must be placed between a discontinuous set of numbers, whereas an N-dash must be placed between the first and last numerals of a continuous set of numbers: “Kim et al. [1-3] insisted…” and “However, Lee et al. [4,5] showed opposing research results.”

**METHODS**

**Eligibility Criteria**

Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.

**Information Sources**

Specify all databases, registers, websites, organizations, reference lists and other sources searched or consulted to identify studies. Additionally, indicate the date when each source was last searched or consulted.

**Search Strategy**

Present the full search strategies for all databases, registers and websites, including any filters and limits used.

**Selection Process**

Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.

**Data Collection Process**

Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.

**Data Items**

List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought, and if not, the methods used to decide which results to collect.

List and define all other variables for which data were sought. Additionally, describe any assumptions made about any missing or unclear information.

**Study Risk of Bias Assessment**

Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.

**Effect Measures**

Specify for each outcome the effect measure(s) used in the synthesis or presentation of results.

**Synthesis Methods**

Describe the processes used to decide which studies were eligible for each synthesis. Subsequently, describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. Additionally, detail any methods used to tabulate or visually display results of individual studies and syntheses; to synthesize results and provide a rationale for the choice(s); to explore possible causes of heterogeneity among study results. Lastly, describe any sensitivity analyses conducted to assess robustness of the synthesized results.

**Reporting Bias Assessment**

Describe any methods used to assess risk of bias due to missing results in a synthesis.

**Certainty Assessment**

Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.

**RESULTS**

**Study Selection**

Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.

**Study Characteristics**

Cite each included study and present its characteristics.

**Risk of Bias in Studies**

Present assessments of risk of bias for each included study.

**Results of Individual Studies**

For all outcomes, present, for each study: summary statistics for each group (where appropriate), along with an effect estimate and its precision, ideally using structured tables or plots.

**Results of Syntheses**

For each synthesis, briefly summarize the characteristics and risk of bias among contributing studies. Present the results of all conducted statistical syntheses, investigations of possible causes of heterogeneity among study results, and sensitivity analyses performed to assess the robustness of the synthesized results.

**Reporting Biases**

Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.

**Certainty if Evidence**

Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.

**DISCUSSION**

Provide a general interpretation of the results in the context of other evidence. Discuss any limitations of the evidence included in the review and the review processes used. Examine implications of the results for practice, policy, and future research.

**REFERENCES**

References in the original article are limited to 30, and all cited references should be listed in the order of citation without any duplicated references.

- Journal article

1. Lee JY, Lee IB, Kim MB. Correlation between residual dizziness and modified clinical test of sensory integration and balance in patients with benign paroxysmal positional vertigo. Res Vestib Sci 2021;20:93-100.

2. Reiss LA, Ito RA, Eggleston JL, et al. Pitch adaptation patterns in bimodal cochlear implant users: over time and after experience. Ear Hear 2015;36:e23-34.

3. Yévenes-Briones H, Caballero FF, Struijk EA, et al. Association between hearing loss and impaired physical function, frailty, and disability in older adults: a crosssectional study. JAMA Otolaryngol Head Neck Surg 2021 Sep 23 [Epub]. https://doi.org/10.1001/jamaoto.2021.2399

- Entire book and book chapter

4. Leigh RJ, Zee DS. The neurology of eye movements. 2nd ed. Oxford University Press; 1991. p. 90-100.

5. Roland JT Jr. Vestibular and auditory ototoxicity. In: Cummings CW, Fredrickson JM, Harker LA, Krause CJ, Schuller DE, editors. Otolaryngology-head and neck surgery. 3rd ed. Mosby Year Book; 1998. p. 3186-99.

- Online source

6. Statistics Korea. Causes of death statistics [Internet]. Statistics Korea; c2020 [cited 2020 Dec 11]. Available from: https://kosis.kr/eng/

7. American Cancer Society. Cancer treatments and side effects [Internet]. American Cancer Society; c2023 [cited 2023 Aug 10]. Available from: https://www.cancer.org/treatment/treatments-and-sideeffects.html~~.~~

- Conference proceedings

8. Virolainen A, Saxen H, Leinonen N. Antibody response to pneumolysin in children with acute otitis media. In: Lim DJ, Bluestone CD, Klein JO, Nelson JD, Ogura PL, editors. Recent advances in otitis media. Proceedings of the 5th International Symposium on Recent Advances in Otitis Media; 1991 May 20–24: Ft. Lauderdale, Florida. Hamilton: Decker Periodicals; 1993. p. 205-6.

- Dissertation

9. Kaplan SJ. Post-hospital home health care: the elderly’s access and utilization [dissertation]. Washington University; 1995.

**Figures**

**Identification of studies via databases and registers**

Records removed before screening:

Duplicate records removed (n = )

Records marked as ineligible by automation tools (n = )

Records removed for other reasons (n = )

Records identified from\*:

Databases (n = )

Registers (n = )

**Identification**

Records screened

(n = )

Records excluded\*\*

(n = )

Reports sought for retrieval

(n = )

Reports not retrieved

(n = )

**Screening**

Reports assessed for eligibility

(n = )

Reports excluded:

Reason 1 (n = )

Reason 2 (n = )

Reason 3 (n = )

etc.

Studies included in review

(n = )

Reports of included studies

(n = )

**Included**

Figure 1. PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers.

Figure 2. Legend text.

Please note that the actual figures should be uploaded separately. Figures that are drawn or photographed professionally should be sent as JPG or PPT files. However, if an article receives approval for publication, files must be submitted as .tiff or .pdf. Each figure must have a caption explaining the figure. The preferred size of the images is 8 x 8 cm but 16.5 cm in width x 8 cm in length is also acceptable. It is authors' full responsibility to submit images of sufficient quality for accurate reproduction and to approve the final color galley proof. All images must be correctly exposed, sharply focused and prepared in files of 500 dpi or more.

**Table 1.** Degree of vertigo control according to hearing outcomes at short-term follow-up

|  |  |  |
| --- | --- | --- |
| Variable | Hearing outcomes | *p*-value |
| Improveda) (n=5) | Stationaryb) (n=1) | Worsenedc) (n=11) |
| No. of vertigo (mo) |  |  |  |  |
| Preoperative | 3.8±1.5 | 3.8±3.3 | 4.9±2.6 | 0.615 |
| Short term | 0  | 0.5±0.8 | 2.0±2.3\* | 0.033 |
| Vertigo class |  |  |  | 0.552 |
| Improved |  5 (100) | 9 (81.8) | 7 (63.6) |  |
| Stationary | 0 (0) | 2 (18.2) | 2 (18.2) |  |
| Worsened | 0 (0) | 0 (0) | 2 (18.2) |  |

(if applicable)

Values are presented as mean±standard deviation or number (%). (general note)

AAA, aaa; BBB, bbb; CCC, ccc. (abbreviation)

Hearing gain of a)≥10 dB, b)≥‒10 and ＜10 dB, and c)‒10 dB. (notes on specific parts)

\**p*＜0.05 vs. improved group. (notes on level of probability)

**For more information, visit: http://www.prisma-statement.org/.**