

Effect of intratympanic steroids compared to betahistine on vertigo outcomes in adult patients with Meniere's disease

Summary

Meniere's disease has been described as one of the most debilitating diseases, due mainly to the accompanying severe vertigo symptoms. Intratympanic steroids and betahistine are two recommended medications used to treat vertigo. The purpose of this review is to compare the effect of intratympanic steroids to betahistine on patient-oriented vertigo outcomes among adult patients with Meniere's disease.

Implications

No significant difference was found in vertigo symptoms between patients treated with intratympanic steroids and those treated with betahistine. However, given that only one study was found, more research is required to compare the effects of intratympanic steroids to betahistine in assessing the impact on vertigo.

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What is the current situation?

- Globally 12 in 1000 people are diagnosed with Meniere's disease, with the prevalence shown to increase with age.
- Despite this trend, the available literature on patient-oriented vertigo treatments remains low.

What is the objective?

- To compare the effect of intratympanic steroids to betahistine on vertigo outcomes in adult patients with Meniere's disease using a rapid review.

How was the review conducted?

- MEDLINE, Embase and Cochrane Central were searched by an information specialist for relevant randomized controlled trials published in English in the past 10 years, which resulted in 87 citations.
- After de-duplication, a total of 53 titles and abstracts were screened, followed by 6 potentially relevant full-text articles.
- Data abstraction and risk-of-bias assessment using the Cochrane Risk of Bias tool was completed by one reviewer and verified by another.
- Due to the limited number of studies, a meta-analysis could not be conducted.

What did the review find?

- One trial met the inclusion criteria.
- The included study compared two groups: group A was treated with 1mL (4mg/mL) of intratympanic dexamethasone using a 22-gauge spinal needle once every three days for a total of three injections along with a placebo pill, and group B was treated with betahistine (144mg/day) over a 12-month period along with three intratympanic saline injections once every three days.
- The outcome of interest was measured using mean number of vertigo spells per month and vertigo control (in accordance with the AAO-HNS guidelines) categorized into Class A: complete vertigo control, Class B: substantial control, Class C and D: limited control, and Class E: no control of vertigo.
- There was a reduction in mean number of vertigo spells for both groups from baseline to follow-up.
- However, no statistically significant differences were found in vertigo control at 12 months among those treated with intratympanic steroids in comparison to betahistine ($p=0.86$).
- Risk of bias was low across all categories for this trial, apart from attrition and reporting bias which were high and unclear risk, respectively.

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