



## Making your head spin: Betahistine for benign paroxysmal positional vertigo

### Clinical Question: Is betahistine effective for adults with benign paroxysmal positional vertigo (BPPV)?

**Bottom Line: When used alone without repositioning maneuvers (i.e. Epley maneuver), limited data suggest more patients have “improved” dizziness with betahistine compared to placebo (75% versus 52% placebo at 3 months). However, betahistine is less effective than Epley. Whether betahistine is effective for residual dizziness post-Epley is uncertain. At best, 44% of patients compared to 21% on placebo will “improve”.**

#### Evidence:

- All randomized, controlled trials (RCTs). Differences statistically significant unless stated.
  - Betahistine without Epley maneuver:<sup>1</sup>
    - Industry-sponsored, double-blind RCT, 63 patients, betahistine 16mg BID or placebo. After 3 months treatment:
      - Number of patients “improved” (not defined) on vertigo scale: 75% betahistine, 52% placebo.
      - Headache: 18% (betahistine) versus 3%, not statistically different.
  - Betahistine compared to Epley maneuver:
    - 90 patients, betahistine, betahistine plus Epley maneuver, or Epley maneuver (frequencies not stated).<sup>2</sup> Baseline vertigo ~7.7 on 11-point scale (lower=better).
      - After 1 week:
        - Epley or combination better on vertigo scale: ~2.3 versus ~3.7 (betahistine).
          - Difference likely clinically relevant.
      - 96 patients, betahistine 24mg BID or Epley maneuver (performed twice at baseline, repeated after 1 week if needed).<sup>3</sup> Baseline dizziness disability ~75 on 100-point scale (lower=better).
        - Disability score after 8 weeks treatment: 20 versus 10 (Epley), significance not reported.
    - Post-Epley maneuver:
      - 100 patients with dizziness post-Epley maneuver, randomized to betahistine 24mg BID or no drug.<sup>4</sup> After 5 days:
        - No difference in any outcome.

- 78 patients (59 with dizziness post-Epley given up to 4 times/session), randomized (double-blind) to betahistine 16mg TID or placebo.<sup>5</sup> After 1 week:
  - No difference dizziness disability scores.
  - Patients with “improved” dizziness (not defined): 59% versus 27% (placebo).
  - Limitations: if used all randomized patients, improvement changes to 44% and 21%, respectively.
- 72 patients, double-blind, randomized to Epley, Epley plus placebo, or Epley plus betahistine 24mg bid.<sup>6</sup> After 1 week:
  - Adding betahistine did not significantly change dizziness disability score, vertigo score or number with “persistent symptoms”.

**Context:**

- Betahistine adverse effects (mainly gastrointestinal and headache) poorly reported; often similar to placebo.<sup>7</sup>
- Betahistine (16mg) costs ~\$25 for 90 tablets.<sup>8</sup>

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**Disclosures:**

Authors do not have any conflicts of interest to declare.

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