



Antihistamines for allergic rhinosinusitis: 'Achoo'sing the right treatment

CLINICAL QUESTION

Do oral antihistamines improve symptoms in adults with allergic rhinosinusitis?

BOTTOM LINE

Oral antihistamines reduce rhinosinusitis symptoms by ~10-30% versus placebo over 2-12 weeks. Individual antihistamines appear to have comparable efficacy. More patients attain moderate or better improvement with intranasal corticosteroids (~50%) versus antihistamines (~30%). There appears to be no meaningful differences between antihistamines and leukotriene receptor antagonists or in adding antihistamines to intranasal corticosteroids.

EVIDENCE

- Results statistically significant unless otherwise noted.
- Antihistamines versus placebo:
 - Systematic review [7 randomized controlled trials (RCTs), 639 patients] of antihistamines versus placebo over 2-12 weeks.¹
 - Patient-rated nasal obstruction score (scale 0-3, higher worse), baseline=1.65: Placebo improved symptoms 16% and antihistamines 48%.

- Systematic review (5 RCTs, 3329 patients) of bilastine (newer antihistamine) versus placebo over 1-12 weeks.²
 - Total symptom score effect size=0.28, similar to improving symptoms 10-16% over placebo.³
- Other systematic reviews found similar.⁴⁻⁶
- Antihistamines versus antihistamines:
 - Systematic reviews showed no statistical or clinical differences in Total or Nasal Symptom Scores between antihistamines.^{2,7}
- Antihistamines and other agents:
 - Two systematic reviews (5-16 RCTs, 990-2267 patients) compare intranasal corticosteroids to antihistamines over 2-8 weeks.^{8,9} Total nasal symptom scores improved more with intranasal corticosteroids (51%) versus antihistamines (31%).
 - Proportion attaining moderate control or better¹⁰ was higher with intranasal steroids (78%) versus antihistamines (58%), number needed to treat=5.
 - Systematic review (13 RCTs, 5066 patients) of antihistamines plus intranasal corticosteroids versus intranasal corticosteroids alone over 2-6 weeks.¹¹
 - Antihistamine did not add clinically meaningful benefit.
 - Other systematic reviews found similar.¹²⁻¹³
 - Two systematic reviews (9-14 mixed-design studies, 4458-5781 patients) of antihistamines versus leukotriene receptor antagonist over 1-12 weeks: No clinically meaningful differences.^{14,15}
- Limitations: Too many to list but include per protocol analysis, incorrect meta-analysis techniques, negative studies not published, and scales defined inconsistently.^{1,7,11,12,15}

CONTEXT

- Most antihistamines and many intranasal corticosteroids are available over-the-counter.
- Adverse event data is infrequently reported, inconsistent, and pooled statistics are generally not clinically interpretable.¹⁶ Versus Placebo:
 - Diphenhydramine mild/moderately more sedating (effect size=0.36).
 - Second-generation antihistamines slightly more sedating (effect size=0.14).¹⁶
 - Some antihistamines may have less sedation: Fexofenadine versus other second-generation (statistic uninterpretable)¹⁷ or bilastine (3%) versus cetirizine (7%).²

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