

Correspondence

Fluticasone furoate nasal spray is the only intranasal corticosteroid to reduce the ocular symptoms of seasonal allergic rhinitis consistently

To the Editor:

Prenner et al¹ noted that fluticasone furoate nasal spray (FFNS) consistently improved the instantaneous total ocular symptom score (iTOSS) in subjects with seasonal allergic rhinitis (SAR), but its effect on individual ocular symptoms had not been reported. In 6 prospectively designed studies, FFNS 110 µg once daily demonstrated statistically significant improvements in both the daily reflective total ocular symptom score and iTOSS, summed scores of self-reported ocular itching/burning, tearing/watering, and redness. The use of reflective total ocular symptom score and iTOSS to measure the ocular symptom efficacy of FFNS aligns with the US Food and Drug Administration guidance for the use of composite symptom scores to demonstrate effectiveness in allergic rhinitis trials.² Although the studies were not powered to detect differences in individual ocular symptoms, statistically significant improvements were demonstrated in all 3 ocular symptoms of SAR (with the exception of instantaneous eye watering/tearing in 1 study and reflective eye watering/tearing and eye redness in another) versus placebo (Table I).

The authors neglected to disclose that mometasone furoate nasal spray (MFNS) failed to reduce iTOSS, a coprimary endpoint, versus placebo in a second study prospectively designed to evaluate its effect on ocular symptoms.³ The 2 MFNS studies provide a sharp contrast to the quality and weight of evidence from 6 randomized, prospective, placebo-controlled trials of FFNS 110 µg once daily that firmly establish FFNS as the only intranasal steroid (INS) that consistently reduces the ocular symptoms of SAR.

A previous explanation for the inconsistent results of intranasal steroid studies evaluating efficacy for ocular symptoms has been differences in trial design and quality.⁴ However, the MFNS studies used the same rigorous design as FFNS yet failed to demonstrate consistent ocular benefit.^{1,3} Combined, the MFNS studies not only demonstrated that MFNS lacks substantial evidence required to support ocular efficacy but also provided convincing data refuting the authors' assertion of a class-based ocular benefit of all intranasal steroids for SAR.^{1,3,5} Whether the consistent ability of FFNS to

reduce the ocular symptoms of SAR is a result of the local potency or duration of action of this molecule within the nasal mucosa⁶ or the delivery device would be excellent areas for future research.

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TABLE I. Total and individual ocular symptom scores from FFNS studies

	FFR20001 ⁷	FFR30003 ⁸	FFR103184 ⁹	FFR104861 ¹⁰	FFU109045 ^{11*}	FFU109047 ^{11*}
Difference from placebo in mean change from baseline (<i>P</i> value)						
Total ocular symptom scores						
Daily rTOSS	−0.74 (.001)	−0.55 (.008)	−0.74 (<.001)	−0.60 (.004)	−0.46 (.003)	−0.39 (.034)
Predose AM iTOSS	−0.73 (.002)	−0.52 (.009)	−0.76 (<.001)	−0.55 (.007)	−0.54 (<.001)	−0.44 (.014)
Individual ocular symptom scores						
Reflective						
Eye itching/burning	−0.27 (.003)	−0.20 (.007)	−0.26 (<.001)	−0.16 (.003)	−0.14 (.007)	−0.15 (.049)
Eye tearing/watering	−0.27 (.001)	−0.16 (.032)	−0.25 (<.001)	−0.25 (.001)	−0.18 (.002)	−0.13 (.058)
Eye redness	−0.24 (.003)	−0.20 (.006)	−0.24 (.001)	−0.19 (.013)	−0.15 (.004)	−0.11 (.059)
Instantaneous						
Eye itching/burning	−0.23 (.006)	−0.20 (.007)	−0.26 (<.001)	−0.15 (.044)	−0.17 (.002)	−0.15 (.025)
Eye tearing/watering	−0.30 (<.001)	−0.14 (.065)	−0.25 (<.001)	−0.21 (.007)	−0.18 (<.001)	−0.15 (.025)
Eye redness	−0.20 (.014)	−0.20 (.004)	−0.26 (<.001)	−0.19 (.012)	−0.18 (<.001)	−0.14 (.025)

rTOSS, Reflective total ocular symptom score.

*Individual ocular symptoms analyzed *post hoc*.