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Systemic effects of intranasal corticosteroids

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To the Editor:

The recent article by Wilson et al (J Allergy Clin Immunol 1998;101:470-4) should be discussed further before accepting the authors' conclusion that intranasal fluticasone suppresses the hypothalamic-pituitary-adrenal (HPA) axis.

The study has some shortcomings, including the fact that it was done on nonallergic subjects and that it was an open study in which the different products were easily identified by the investigators and subjects. In the Results section, all HPA-axis parameters were normal except for uncorrected overnight urinary cortisol. When corrected for creatinine, the results were not different than those with placebo. How can we implicate intranasal fluticasone on the basis of only 1 of many tests and the "uncorrected" one at that?

More importantly, this study needs to be put into perspective. The authors suggest that intranasal steroids may have a significant systemic effect and lead to clinical adverse events.

They base this on the *statistically* significant changes in uncorrected urinary cortisol, not on *clinical* adverse events. It is important to look at clinical adverse events rather than isolated laboratory changes. The authors do not indicate the presence of any clinical adverse events

in their patients.

There is a large body of data on many thousands of patients that speaks to the clinical safety of intranasal steroids, including the clinical safety of fluticasone. Long term-studies with higher than recommended doses of intranasal fluticasone have been performed with specific evaluation of the HPA axis; these have shown no adverse effects.¹⁻³ Not only have these clinical studies failed to show any clinical adverse effects of intranasal steroids, the postmarketing experience with these drugs has been excellent. Hundreds of thousands of patients have been treated with these drugs, including fluticasone, and they have not been associated with any significant clinical adverse events.

My conclusion from this study would be as follows: Intranasal steroids do not show any clinically significant adverse events, although they may result in minimal statistical suppression of uncorrected urinary cortisol levels in some patients.

These are important medications for therapy of rhinosinusitis; we should not be deterred from using them because of this study.

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