

CORRESPONDENCE

Prolonged duration of action of the newly developed inhaled corticosteroid fluticasone furoate in asthma

DOI:10.1111/j.1398-9995.2011.02559.x

Dr Lipworth is correct in raising the observation that we have not directly compared fluticasone furoate (FF) and fluticasone propionate (FP). As we pointed out in this paper, this was the first clinical study to assess efficacy and duration of inhaled FF in patients with asthma (1). Although earlier *in vitro* studies have shown promising results, e.g. a greater affinity for the glucocorticoid receptor, no clinical studies with inhaled FF had been performed before. A direct comparison between FF and FP would have required significantly larger sample sizes. Inhaled FP was merely used as a 'control' compound known to have <24 activity in the lung. As the study compound, FF, was still at a very early stage of development, the purpose of the study was to assess the duration of effect of 1000 µg FF against placebo by showing a protective effect of a single dose of FF against AMP hyperresponsiveness that lasted up to 26 h. As expected, when we compared FP vs placebo at 26 h, the results were statistically non-significant providing only indirect evidence of a longer

duration of effect for FF. Subsequent to our study, trials have now been conducted that more formally demonstrate a duration of effect for FF up to 24 h (2, 3). Taken together, these results suggest that FF may be suitable for once-daily dosing in asthma. However, we agree with Dr Lipworth that further studies comparing different doses of FF and FP at different dosage intervals are indicated to further elucidate the relative duration of the two compounds. Finally, in response to the questions, the inhaler device we used was a Rotadisk (250 µg FF or FP or placebo) four puffs.

M. van den Berge¹, B. Lujik², P. Bareille³, N. Dallow³,
D. S. Postma¹, J-W. J. Lammers²

¹Department of Pulmonary Diseases, University Medical Center Groningen, Groningen; ²Department of Pulmonary Diseases, University Medical Center Utrecht, the Netherlands; ³GlaxoSmithKline, Research and Development, Stockley Park, UK

References

1. Van den Berge M, Lujik B, Bareille P, Dallow N, Postma DS, Lammers J-WJ. Prolonged protection of the new inhaled corticosteroid fluticasone furoate against AMP hyperresponsiveness in patients with asthma. *Allergy* 2010;**65**:1531–1535.
2. Allen A, Pierre LN, Roussel VM. Fluticasone furoate (FF) a novel inhaled corticosteroid (ICS) demonstrates prolonged lung absorption kinetics in man. Abstract ATS 2010.
3. Bleecker ER, Bateman ED, Busse WW, Lotvall J, Woodcock A, Tomkins S et al. Fluticasone furoate (FF), an inhaled corticosteroid (ICS), is efficacious in asthma patients symptomatic on low doses of ICS therapy. Abstract ERS 2010.