LETTER TO THE EDITOR

Response to Dr. Tsakok’s letter to the editor entitled “Comment on tiotropium”

We appreciate Dr. AD Tsakok’s interest in our manuscript. However, we do not agree with his assertion that our analysis is flawed. Our analysis makes an assumption of normality and homogeneity of variance. The normality assumption is based on central limit theorem as Dr. Tsakok argues. A quick examination of standard errors and sample sizes provided in Table 3 shows that the variances for the two groups are very similar and therefore the homogeneity of variance assumption is clearly justified. No specific test of variances is necessary or even appropriate prior to conducting the analysis of covariance. Dr. Tsakok claims to have different results which show significant differences between tiotropium and placebo for the SGRQ total score and rescue medication at 3-week follow up which happen to be more favorable for tiotropium than what we have presented. Our p-values for these comparisons were 0.0601 and 0.0815. We believe the main reason for the differences in results is that Dr. Tsakok exploits the normality assumption to a greater degree than we do in our analysis. We chose a more conservative and robust method than that used by Dr. Tsakok to describe the effect of tiotropium.

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