Letter in Reply: **Effect of Pulmonary Rehabilitation in Patients with Asthma COPD Overlap Syndrome: A Randomized Control Trial**

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Dear Editor,

We acknowledge the inclination of the authors for the investigation conducted by us[1]. We appreciate their scrupulous scrutiny of the investigation and we would like to address the issues raised by them with holistic approach.

The point raised by the authors regarding exclusion of the control group from educational intervention, seems misinterpretation. As per American Thoracic Society/Europeon Respiratory Society (ATS/ERS)[2] pulmonary rehabilitation (PR) is a comprehensive approach in which structured program educating on self-management is considered to be one of the key components of the comprehensive PR[2]. The present randomized control trial (RCT) was aimed to assess the effect of comprehensive PR program in ACOS[1] therefore, it became imperative that the control group should be excluded from receiving any form of intervention either exercise/education which is a part of comprehensive PR[2] this is also in accordance with previously conducted investigation[3] else this inclusion might have made the study design less rigorous and could have affected the outcomes of the investigation[1]. Furthermore studies[4,5] highlighted by the authors was not aimed to evaluate the effect of educational intervention on mortality rate.

We do not agree with the claim of the authors regarding questionable ethics pertaining to the exclusion of control group from receiving educational intervention. Ethical issues arise when refraining certain intervention in the control group possess risk to the participant, As per ethical principle of “risk-benefit balance” rule of thumb is that a `control' intervention should commensurate to the best available treatment or provided with best usual care[6] keeping this balance into consideration none of the participants in our investigation[1] were deprived of receiving the standard medical care along with usual strategies similar to previously conducted studies[3,4]. The control group was further enrolled in the PR-program after completion of the investigation.

Another concern of the authors was utilization of parametric test if the data set was non-normally distributed. This is long-standing controversy whether parametric test is applicable to non-normally distributed continuous data[7]. Basically, the robustness of the parametric test to small deviation and estimation of the confidence intervals[7] favors the applicability of parametric statistics in majority of the scenarios even on non-normally distributed continuous data. Authors are right to point out that within-group comparisons can be incorporated as the present investigation[1] was aimed to elucidate effect between the groups so we were less inclined regarding within-group significance but we have depicted mean and standard deviation for both the groups at baseline as well as after 6-weeks, refer (Table 2)[1].

To sum up, the findings of the present investigation[1] were strengthen with rigourness of the study design and the entire investigation[1] was conducted in accordance with ethical considerations. The findings of our investigation[1] will pave the way for clinicians in optimizing the effectiveness of PR in patients with ACOS. However, we do agree that multi-centered trial with blinding should be considered to reach comprehensive inferences in future.

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