Montelukast in acute asthma exacerbations: Interpreting too far??

Sir,

We read with keen interest the article by Chaudhury *et al*. in a recent issue of Lung India.[1] The authors have evaluated the additive role of montelukast in acute exacerbation of asthma. Authors concluded that the use of montelukast for 2 weeks during an episode of acute asthma exacerbation leads to better forced expiratory volume in 1 s (FEV1) at 4 weeks and better peak expiratory flow rate (PEFR) at 2 and 4 weeks. However, we have multiple concerns regarding the study methodology and subsequent interpretation of the findings that need to be discussed.

The study is a placebo-controlled trial, but it has not been mentioned whether it was a matched placebo. If a matched placebo was used, the study could have been ideally performed as double-blind placebo-controlled trial to reduce the risk of bias. The lack of blinding of the physician when it could possibly have been ideally performed is the major limitation to the conduct of such an investigation.[2] Second, as the study is primarily focused on the therapeutic efficacy of a drug (in this case montelukast), it is very important to know that how the treatment protocols for the management of asthma exacerbation was standardized. This is very important to exclude the possibility of benefit in the montelukast arm, due to another drug like parenteral steroids.

Third, timing of performing pulmonary function tests during an episode of asthma exacerbation and how it excluded chronic obstructive pulmonary disease (COPD) (as reported by the authors) is not clear. The COPD-6 Vitalograph used in the study for pulmonary function testing is not the ideal modality as it displays FEV6 rather than forced vital capacity (FVC).[3] However, authors report the results on FVC, and it is not clear as to how the FVC and PEFR estimations were performed. Fourth, clinically relevant outcomes such as duration of hospital stay and need for mechanical ventilation have not been assessed which are important parameters to be evaluated. In view of these multiple limitations, the results of the study should be interpreted cautiously.

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Conflicts of interest
There are no conflicts of interest.

Saurabh Mittal, Karan Madan

Department of Pulmonary Medicine and Sleep Disorders, All India Institute of Medical Sciences, New Delhi, India
E-mail: drkaranmadan@gmail.com

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