Controlling Asthma by Breathing Techniques
Role of Anxiety

To the Editor:

We read with interest the study by Ritz et al in CHEST (November 2014) in which the authors showed that respiratory training leads to improvements in asthma control, peak flow variability, lung function, bronchodilator use, airway hyperreactivity, and quality of life. Compared with slow breathing and awareness training, patients in the capnometry-assisted respiratory training group had a greater reduction in respiratory impedance and less distress during methacholine challenge. The authors have hypothesized that training of tolerance to Pco2 elevations in these patients is the mechanism underlying the observed effects.

Although the authors have done well to measure the effects of breathing techniques on a multitude of physiologic variables, an important assessment that was not performed is the objective assessment of anxiety. Anxiety has been found to have a strong association with asthma symptoms. Negative psychologic states may be related, albeit loosely, to airway hyperresponsiveness. Further, breathing techniques and training are known to reduce anxiety. It is possible that breathing training in the capnometry-assisted respiratory training group was more effective due to the better biofeedback and, thus, was more effective in reducing the patients' anxiety levels, leading to improvements in many of the assessed variables. Thus, whether the observations in this study had a purely physiologic basis, or psychologic factors were involved, or resulted from a combination of the two is an unresolved question.

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References