Macrolide therapy in asthma: limited treatment, long-term improvement

To the Editors:

As part of their interesting review of long-term macrolide therapy in chronic inflammatory airway diseases, CROSBIE and WOODHEAD [1] cite eight randomised double-blind placebo-controlled trials of macrolide therapy in asthma. Most were small, and all were short-term (none >12 weeks). Some positive effects were noted; mechanisms proffered included both anti-inflammatory and antimicrobial (including against *Chlamydia pneumoniae*).

I would like to draw the authors' attention to another randomised double-blind placebo-controlled trial of azithromycin in adults with stable persistent asthma [2] that was not included in their review. Azithromycin was chosen for this study based on a before–after study [3] that found significant clinical and spirometric responses in azithromycin-treated adults with asthma and evidence of *C. pneumoniae* infections. Azithromycin's extended intracellular half-life permits convenient weekly dosing as antichlamydial therapy [4]. The trial [2] employed a total of six weekly azithromycin doses and assessed outcomes 3 months after treatment completion.

Positive findings were: 1) a significant improvement in overall asthma symptoms at treatment completion that persisted unabated for 3 months despite withdrawal of azithromycin; and 2) baseline (pre-treatment) anti-*C. pneumoniae* immunoglobulin A antibodies significantly predicted asthma symptoms at follow-up. The trial was underpowered to assess the interaction between antibody status and treatment outcome; nevertheless, symptom improvement attributable to azithromycin was twice as great in antibody-positive compared with antibody-negative subjects.

Overall, the results lend further evidence in support of performing larger longer-term trials to assess the clinical utility of azithromycin in asthma and to parse the underlying mechanism(s). A somewhat larger but still small effectiveness trial of a total of 12 weekly azithromycin doses with follow-up at 1 yr is currently under way (NCT00266851; www.ClinicalTrials.gov).

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STATEMENT OF INTEREST

None declared.

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