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| **Azithromycin induced asthma remission: Secondary analysis of a placebo-controlled RCT.**  |
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| **Introduction/Aim:**Asthma remission is a potential treatment goal. This study evaluated the efficacy of azithromycin in achieving asthma remission. **Methods: This secondary analysis of the** AMAZES dataset – a double-blind placebo-controlled RCT that evaluated the safety and efficacy of azithromycin on exacerbations in patients with persistent uncontrolled asthma – assessed the composite outcome of clinical remission, defined as zero exacerbations (i.e., no hospitalisations or ED visits due to asthma) and zero oral corticosteroids (OCS) (i.e., no burst or maintenance use) during the previous six months at 12 months and Asthma Control Questionnaire (ACQ-5) ≤1, assessed at 12 months. Clinical remission plus optimisation (post-bronchodilator FEV1≥80%) or stabilisation (post-bronchodilator FEV1 ≤5% decline from baseline) of lung function was also assessed at 12 months. Complete remission was additionally defined as sputum eosinophils <3% plus the above criteria. **Results:**335 patients (41.5% male; median [IQR] age 61.01 [51.03, 68.73] years) who completed the 12-month treatment period in the AMAZES dataset were included in the analysis. The median ACQ-5 at baseline was 1.6 (1.2, 2.2). In the previous year, 53.9% experienced an OCS burst, 15.5% visited the emergency department, and 12.2% were hospitalised due to asthma. Twelve months treatment with azithromycin induced asthma remission in a subgroup of patients, and a significantly higher proportion in the azithromycin arm achieved both clinical remission (50.6% vs 38.9%; p=0.032) and clinical remission plus lung function criteria (50.8% vs 37.1%; p=0.029) compared with placebo.  In addition, a higher proportion of the azithromycin group achieved complete remission (23% vs 13.7%; p=0.058).**Conclusion:** Adults with persistent symptomatic asthma achieved a higher remission rate when treated with azithromycin. Remission on treatment may be an achievable treatment target in moderate/severe asthma, and future studies should consider remission as an outcome measure.**Grant Support:** AMAZES RCT was funded by the National Health and Medical Research Council, Australia. |