

Skin Prick Test Reactivity to Common Allergens Among Women in Entebbe, Uganda

Harriet Mpairwe; Lawrence Muhangi; Juliet Ndibazza; Josephine Tumusiime; Moses Muwanga; Laura C. Rodrigues; Alison M. Elliott

Abstract

The objectives of this study were to estimate the prevalence of atopic sensitization, and to identify common aeroallergens associated with atopic sensitization among women in Entebbe, Uganda, and to determine risk factors for atopic sensitization among those with and without a history of asthma or eczema. A case—control study was conducted within a trial of deworming in pregnancy, approximately 2 years after the intervention. Skin prick test reactivity was assessed among 20 women with a history of asthma, 25 with history of eczema and 95 controls. Overall prevalence of reactivity was estimated by adjusting for the prevalence of asthma in the whole cohort. Overall skin prick test prevalence was: any allergen 30.7%, *Blomia tropicalis* 10.9%, *Dermatophagoides* mix 16.8%, cockroach 15.8%. The prevalence of a positive skin prick test was significantly associated with a history of asthma (70% to any allergen vs. 32%, $P=0.002$) but not with a history of eczema (44% vs. 36%, $P=0.49$). Women with *Mansonella perstans* had significantly reduced odds for atopic sensitization (adjusted odds ratio 0.14, 95% CI 0.03—0.69); women with a history of asthma were less likely to have hookworm (adjusted odds ratio 0.24, 95% CI 0.07—0.81) but this association was weaker for women with a history of eczema. [Clinical Trial No. ISRCTN32849447]

Key Words: Worms; Allergy; Atopy; Skin Prick Test; *Mansonella Perstans*; Uganda