Abstract

While most African countries are experiencing an epidemic rise in chronic infectious diseases, such as tuberculosis, malaria and parasites, industrialized westernized countries are experiencing an epidemic rise in atopic and auto-immune diseases.

One of the most popular explanations for this increase is the so-called ‘hygiene hypothesis’, which suggests that a decrease or altered exposure to microbes in the environment, as a result of improved sanitation and personal hygiene, smaller family sizes, shorter duration of breastfeeding, immunizations and lack of serious childhood infections, results in alteration of the immunoregulation.

The objective of our study is to examine the relationship of current intestinal helminthic infections with asthma, allergic rhinoconjunctivitis and atopic dermatitis. A hospital-based purposive study of 55 children aged 2–13 years from outpatient clinic attendants of El Fayoum University Hospital in the period from June, 2013 to October, 2013.

Helminthic infections were determined by stool examination and parental history taking. Asthma, rhinoconjunctivitis and atopic dermatitis were diagnosed by International Study of Asthma and Allergies in Childhood questionnaire, results of the Questionnaire-based frequencies were as following:
The study group was all infected with parasites, of them \( \gamma^\wedge \) were not allergic and \( \gamma^\gamma \) were allergic. Among the non allergic group the highest infections were Entrobius vermicularis; \( \wedge \ (\gamma^\wedge, \gamma) \)\% and Trichostrongylus; \( \gamma \ (\gamma^\gamma, \xi) \)\% and the lowest were Entameba hyostolitica; \( \gamma(\gamma, \gamma) \)\%.

Concerning allergic group the highest infections were Entrobius vermicularis; \( \gamma(\gamma^\wedge, \gamma) \)\%, Entameba hyostolitica; \( \gamma(\gamma^\gamma, \gamma) \)\% and the lowest were Giardia lambia; \( \gamma(\gamma, \xi) \)\%. So the current intestinal parasitic infections do not aggravate the allergic state of children.

**Keywords** allergy, atopy, parasitic infections, immune tolerance, intestinal helminthes