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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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بالرسالة صفحات
لم ترد بالأصل

***ENZYME-LINKED IMMUNO-SORBENT
ASSAY VERSUS DIRECT MICROSCOPY IN
DIAGNOSIS AND CURE ASSESSMENT OF
GIARDIA LAMBLIA INFECTION***

Thesis

Submitted for the partial fulfillment
Of
Master degree in parasitology

By

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Enzyme-linked immuno-sorbent assay versus direct microscopy in diagnosis and cure assessment of *Giardia lamblia* infection

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Abstract

Giardia lamblia is the most common human protozoan enteropathogen throughout the world. Microscopic examination of the stool is the gold standard for diagnosis of giardiasis despite this method gives high percentage of false negative results due to intermittence of *Giardia lamblia* cycle. In the present study, a commercially available enzyme linked immunosorbent assay (ELISA) for detection of *Giardia lamblia* antigen in stool was evaluated as a diagnostic method of giardiasis and also as a method of cure assessment after treatment. The results showed that all microscopically positive cases for *Giardia lamblia* were positive for Giardia antigen by ELISA, yielding sensitivity 100% for ELISA. It was found that 23.3% of the microscopically negative cases for *Giardia lamblia* were positive for Giardia antigen by ELISA, giving specificity 76.7% for ELISA. Those cases may be either true positive cases of giardiasis missed microscopically because of intermittence of Giardia cycle, or false positive cases indicating lower specificity of the test. There was a positive correlation between the number of Giardia cysts and the level of Giardia antigen. As regard the cure assessment, the results showed that the level of Giardia antigen decreased significantly after treatment. It was concluded that ELISA detecting Giardia antigen was a highly sensitive (100%) and a fair specific (76.7%) diagnostic method for giardiasis. ELISA may be a good alternative for giardiasis diagnosis, especially when fecal examination was repeatedly negative and before shifting to the other invasive methods of diagnosis. It is also concluded that ELISA is an accurate and reliable method for cure assessment after treatment of giardiasis.

Keywords: *Giardia lamblia*, coproantigen, immunodiagnosis, cure assessment.

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