سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

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التوثيق الإلكتروني والميكروفيلم

قسم

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بالرسالة صفحات لم ترد بالأصل

POLYMERASE CHAIN REACTION VERSUS CONVENTIONAL METHODS IN THE DIAGNOSIS OF VAGINAL TRICHOMONIASIS

Thesis submitted in Partial Fulfillment of

M. D. DEGREE IN PARASITOLOGY

BY

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Abstract

ABSTRACT

Wet mount microscopy detected *T. vaginalis* in 82(41%) of 200 vaginal swab samples. On the other hand culture on InPouch TV and modified thioglycolate media yielded positive results from 128((64%) and 130(65%) samples respectively. Using TVA5-TVA6 and TVK3-TVK7 primer pairs in a polymerase chain reaction, positive amplifications were obtained from 130(65%) and 135 (67.5) samples respectively. Taking the combined results of wet mount microscopy and culture as the "Gold standard", the estimated sensitivity and specificity of the polymerase chain reaction using TVA5-TVA6 primer pairs were 99.23% and 98.57% respectively versus 99.23% and 91.42% using TVK3-TVK7 primer pair. On the other hand the estimated sensitivity of the conventional methods was 63.07% for wet mount microscopy, 98.46% for InPouch culture and 100% for modified thioglycolate culture. The threshold of detection of polymerase chain reaction using TVA5-TVA6 primer pairs was 1.25 flagellates equivalent to 0.19 pg DNA, while the threshold using TVK3-TVK7 primer pairs was 2.5 flagellates equivalent to 0.34 pg DNA. As an objective test, the PCR eliminates the human subjective factors included in conventional wet mount microscopy and in culture techniques, and it avoids the disadvantage of the short shelf-span of some culture media since the oligonucleotides can be stored for a long time. The polymerase chain reaction as a method of diagnosis is expected to contribute significantly in the diagnosis of vaginal trichomoniasis, and will vastly increase the understanding of its still vague epidemiology.