

Dedication

To my Mother & Father

for their subtitle support

(To my Brothers (Mustafa & Hassan

for their kind help and encouragement

Acknowledgment

I wish to express my deep gratitude for all those who help me through the course of this work.

Dr. Humodi Ahmed Saeed, for his expert supervision, encouragement and support throughout the course of work.

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Abstract

This study was carried out in the period from May 2007- March 2008 to detect the presence of *Proteus mirabilis* in patients suffering from urinary tract infection. Forty six urine specimens were collected from patients attended Khartoum Teaching Hospital, Ibrahim Malik Teaching Hospital and Omdorman Teaching Hospital. Bacterial DNA was extracted from each urine specimen using phenol chloroform technique. Gene probe technique was adopted to detect presence of *Proteus mirabilis*. The result revealed that eight (17.4%) specimens were positive and the rest thirty eight (82.6%) were negative. The study concluded that the gene probe technique facilitates detection of bacterial pathogens without bacteriological culture.

الخلاصة

هذه دراسة تم إجراؤها في الفترة بين مايو 2007م إلى مارس 2008م لتحديد وجود بكتيريا (المتقلبة الرقيقة) في عينات بول مرضى التهاب المجارى البولية. تم تجميع ستة و أربعون عينة بول من هؤلاء المرضى من مستشفى الخرطوم التعليمي، مستشفى إبراهيم مالك التعليمي ومستشفى أم درمان التعليمي. تم استخلاص الحمض النووى للبكتيريا من عينات البول باستخدام تقنية الفينول كلوروفورم. وقد استخدم مسبار الجين المتسلسل الزمني للكشف عن بكتيريا (المتقلبة الرقيقة) وأظهرت النتائج وجود ثمانية عينات (17.4%) إيجابية وبقية النتائج ثمانية وثلاثون عينة (82.6%) سالبة. خلصت الدراسة إلى أن تقنية جينات المسبار تسهل اكتشاف البكتيريا الممرضة بدون اللجوء لتقنيات الاستزراع المخبرى.

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