

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى

**اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1) خَلَقَ الْإِنْسَانَ
مِنْ عَلَقٍ (2) اقْرَأْ وَرَبُّكَ الْأَكْرَمُ (3) الَّذِي
عَلَّمَ بِالْقَلَمِ (4) عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ (5)**

صدق الله العظيم

سورة العلق الآيات 1-5

Dedication

To my parents
To my brothers and my sisters
To my wife and my lovely sons

To my teachers and
my friends

Who give me the strength
And support

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First of all, I praise Allah Almighty for His infinite support and guidance. Secondly I would like to convey my deep gratitude to my supervisor Dr.Humodi Ahmed Saeed for his invaluable advice and directions I would also like to thank all my friends for their encouragement and support during the preparation of this dissertation. Last, but not least my special thanks go to Dr. Mogahid Mohammed Elhassan, Dr. Misk Elyaman and, Ustaz Mansour Mohammed Mansur for their technical support.

Abstract

This study was carried out during the period from May 2007 to March 2008 to detect the presence of *Enterobacter cloacae* in stool specimens from patients suffering from gastrointestinal disturbance. Forty six samples were collected from patients attended to Khartoum Teaching Hospital, Omdurman Teaching Hospital, Khartoum pediatrics Hospital and Omdurman pediatrics Hospital.

DNA was extracted directly from stool specimens and used for the subsequent experiment.

The forty six specimens were examined using Real time PCR Technique. The study revealed only seven (15%) specimens were positive and the remained specimens thirty nine (85%) were negative.

The study concluded that the real-time PCR technique facilitates rapid detection of .bacterial pathogens directly from clinical specimen without culturing of bacteria

الخلاصة

هذه دراسة تم إجراؤها في الفترة بين مايو 2007م إلى مارس 2008م لتحديد وجود بكتيريا القولونية العسوية في عينات البراز من مرضى يعانون من اضطراب الجهاز الهضمي. تم تجميع ست وأربعون عينة من المرضى الذين يعانون من اضطرابات في الجهاز الهضمي حضروا إلى مستشفى الخرطوم التعليمي، مستشفى أم درمان التعليمي، مستشفى الخرطوم للأطفال، مستشفى أم درمان للأطفال. استخلص الحمض النووي مباشرة من جميع العينات واستخدمت لإجراء التجربة. أسفرت النتائج عن سبعة عينة إيجابية تمثل (15%) من مجموع العينات وما تبقى تسع وثلاثون (85%) نتائجها سلبية. خلصت الدراسة أن تقنية البلمرة المتسلسل الزمنى يسهل الاكتشاف السريع للبكتيريا الممرضة مباشرة في العينة السريرية دون استخدام طريقة التزريع.

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