

الآية

قال الله تعالى

وَقُلْ أَعْمَلُواْ فَسَيَرِي اللَّهُ عَمَلَكُمْ وَرَسُولُهُ
وَالْمُؤْمِنُونَ وَسَتَرُّونَ إِلَى عَالِمِ الْغَيْبِ
وَالشَّهَادَةِ فَيُبَيِّنُكُمْ بِمَا كُنْتُمْ تَعْمَلُونَ

صدق الله العظيم

سورة التوبة الآية 105

Dedication

To

My father

Who has always been the candle of my life and the wind beneath my wings until I completed this work.

My mother

As she is simply perfect. I have no suitable word that can fully describe her everlasting love to me.

My uncles

Who encouraged me.

Acknowledgement

I am thankfull to gracious God for granting me the knowledge, the will and strength to complete this work. I am deeply indebted to my supervisor Prof. Humodi Ahmed Saeed for his valuable help and guidance during this study. I'm also grateful to his keen interest, patience, assistance and in valuable advice.

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My special thanks are extended to the staff of the Research Laboratory in Sudan University of Science and Technology and to all my friends for their support thought-out this work.

ABSTRACT

This study was carried out in Khartoum State during the periods from August to September 2013. The study aimed to detect *Norovirus* in food handlers and patients with gastroenteritis.

Stool specimens were collected in sterile wide-mouthed containers. The RNA was extracted from each stool specimen using “Ribo-Sorb” extraction kits. The virus was detected by RT-PCR kits.

A total of 50 stool specimens were collected. Among these, 10 were collected from food handlers, 30 from adult patients and 10 from children patients.

The results revealed that only one (10%) of the food handlers carried *Norovirus*, three (30%) of the children >5 years positive and two (6.6%) of the adults were also positive for *Norovirus*.

It is concluded that *Norovirus* may be one of the causative agents of gastroenteritis among symptomatic patients. Food handlers are potentially source of *Norovirus*.

المستخلص

قد أجريت هذه الدراسة في مدينة الخرطوم خلال الفترة من أغسطس وحتى سبتمبر 2013. وذلك للكشف عن نوروفيروس عند مناولي الأغذية غير مظهي الأعراض، والمرضى المصابين بإلتهاب المعدة والامعاء.

تم جمع 50 عينة براز في حاويات واسعة الفم . وتم استخلاص الحمض النووي الريبي من هذه العينات من قبل باستخدام extraction kits ومن ثم الكشف عن نوروفيروس باستخدام جهاز البلمرة المتسلسل.

تظهر النتيجة أن 10% من مناولي الطعام غير مظهي الأعراض حاملي للنوروفيروس و30% من الاطفال اقل من خمس سنوات و6.6% من البالغين يظهرون اعراض ايجابية للنوروفيروس .

خلصت الدراسة الى ان النوروفيروس هو واحد من العوامل الاكثر شيوعا المسببة لالتهاب المعدة والامعاء في السودان. وأن مناولي الأغذية مصدر قوي للإصابة بالنوروفيروس.

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