

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى

قالوا سبحانك لا علم لنا إلا ما علمتنا ۖ إنك أنت العليم الحكيم

صدق الله العظيم

سورة البقرة الآية 32

Dedication

To

My respectful parents, who teach me meaning of love and **who devoted** their life to knowledge and wisdom. There will never be another like you

To

My beloved husband Mohammed Alamin, who is sharing me the dreams of success

To

My lovely sisters; Sabna, a Shar and Romisa.

To

My sweet heart "Gido"

To

who organized my ideas and who did good guidance to me in this research
U.Waseem Sameer.

To

All my friends in Sudan University of Science and Technology and out Sudan University

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Abstract

This study was conducted for serological detection of rotavirus antigens in stool of children with diarrhea in Khartoum state during the period from January 2014 to September 2014. Stool specimens were collected from 100 children less than 5 year of age suffering from diarrhea in Mohammed Alamin Hamad children hospital. All samples were tested for the presence of rotavirus antigens using ELISA kits .The results obtained were processed and statistically analyzed using person chi-square test. Rotavirus antigens were detected in 44 (44%) of total samples examined. The study showed that, there was no significant difference ($p=0.161$) between male children (55%) and females (45%)contracting the disease. Most of the positive cases were in children less than one year of age (33%) followed by 29% in children between 25-36 months years of age. However, the children above 36 months but less 48 months of age had the lowest (9%) rotaviral infection. Most of rotavirus was reported among patients who were suffering from vomiting (30%) and fever (33%). The infection by this virus show was not related by age and sex.

ملخص الاطروحة

بنيت هذه الدراسة بغرض التعرف علي مستضدات فيروس الروتا في عينات البراز من الاطفال المصابين بالاسهال في ولاية الخرطوم خلال الفترة من يناير 2014 الي اكتوبر 2014. جمعت 100 عينة براز من الاطفال دون الخامسة من العمر والذين يعانون من الاسهال في مستشفى محمد الامين حامد التخصصي للاطفال. تم اختبار هذه العينات باستخدام تقنية الاليزا للكشف عن وجود مستضدات فيروس الروتا, وتم تحليل النتائج احصائيا". اظهرت الدراسة ان 44% من العينات ايجابية. كما اوضحت ان معدل الاصابة عند الذكور لا يزيد كثيرا "عند الاناث. اغلب الحالات الموجبة كانت وسط الاطفال اقل من سنة (36%) (تلتها نسبة 29% في الاطفال اقل من 36 شهر ثم نسبة 26 اقل من 48 شهر. معدل ظهور القى وسط المصابين 30% والحمي بلغت نسبة 33%. حيث اثبتت الدراسة انه لا علاقة للاصابة بالفيروس بالعمر والجنس وايضا بالاعراض مثل الحمي والقى.

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List of Abbreviations

ADRV	Adult Diarrhea Rotavirus
ATP	Adenosine triphosphatase
CDC	Centres for Disease Control and Prevention
EIA	Enzyme Immunoassay
EM	Electron Microscopy
G-type	Glycoprotein-type
ICTV	International Committee on Taxonomy and Immunization
IEM	Immunoelectron Microscopy
LAT	Latex Agglutination Technique
NSP	Non-Structural Protein
PAGE	Poly acryl amide Gel Electrophoresis
PCR	Polymerase Chain Reaction
P-type	Protease sensitive protein-type
RNA	Ribonucleic Acid
RT-PCR	Reverse Transcription-Polymerase Chain Reaction
SPSS	Statistical Package for Social Science
VI	Viroplasms
VP	Viral Protein
WHO	World Health Organization
PLC	Phospholipase c
ssRNA	Single strand Ribonucleic Acid