# بسم الله الرحمن الرحيم

# الآية

:قال تعالى

(وَوَضَّيْنَا الْإِنسَانَ بِوَالِـدَيْهِ حَمَلَتْـهُ أُشُّهُ وَهْناً عَلَى وَهْنٍ وَفِصَالُهُ فِي عَلَى وَهْنِ وَفِصَالُهُ فِي عَلَى وَهْنِ وَفِصَالُهُ فِي عَلَى وَلِوَالِـدَيْكُ عِلَى وَلِوَالِـدَيْكَ إِلَيَ وَلِوَالِـدَيْكَ إِلَيَّ الْمَصِيرُ)

صدق الله العظيم سورة لقمان الاَية (14)

## **Dedication**

To my mother

To my father

To my brothers and sisters

For their kind help and support

# Acknowledgments

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#### **Abstract**

The aim of this study was to investigate the frequency of rotavirus infection among children with diarrhea in Omdurman Pediatric Hospital during the period from January to April 2011. Stool specimens from 92 children less than 5 years of age suffering from diarrhea were tested for the presence of rotavirus by antigen detection using the solid-phase sandwich Enzyme-linked Immunosorbent Assay. The results obtained were processed and statistically analyzed using Chisquare test. Rotavirus antigen was detected in 23 (25%) of the patients. Most of the positive cases (91.3%) were in children less than 3 years of age and the infection rate decreased with the increasing age. Children infected with rotavirus were more likely to have vomiting (82.6%) and fairly low frequency of fever (60.9%). Out of the 23 rotavirus positive cases, 13 (30.2%) were breast-fed, 6 (25%) were both breast and bottle-fed and 4 (16.6%) were neither breast nor bottle-fed. When the effect of antibiotics therapy was examined, the antibiotic treated children revealed the highest percentage of rotavirus antigen (26.9%) compared to the non-treated children (14.3%). These findings testified that the diarrhea among infants and children was non-bacterial and mainly due to rotavirus infection. In conclusion, routine and proper diagnosis of rotavirus infection in children with acute diarrhea helps to determine appropriate treatment, prevents the unnecessary use of antibiotics and minimizes the spread of the disease among susceptible children.

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الهدف من هذه الدراسة تـ قصي تردد الاصابة بفيروس الروتا وسط اطفال يعانون من إسهال في مستشفي امدرمان للاطفال خلال الفتره من يناير الي ابريل 2011 جُمعت 92 عينة فسحه من الأطفال دون الخامسة من العمر يعانون من الإسهال وذلك لغرض تشخيص فيروس الروتا. تم عمل تحليل مخبري لهذه العينات باستخدام مقايسة الامتصاص المناعي المرتبط بالانزيم لتحديد المستضدات لفيروس الروتا وتم تحليل النتائج احصائياً. أظهرت الدراسة أن 23 (25%) من العينات إيجابية. أغلب الحالات كانت وسط الأطفال اقل من ثلاث سنوات من العمر (% 91.3) ومعدل الاصابه يه قل مع ازدياد العمر. معدل ظهور أعراض الاستفراغ وسط المصابين % 82.6، لكن أعراض الحمى المنخفضه شكلت (60.9%). بين الثلاث وعشرين عينة الإيجابية لفيروس الروتا، 13 (30.2%) يتغذون بالرضاعة الطبيعية، 6 (25%) يتغذون بالرضاعة الطبيعية والصناعية و 4 (16.6% لا يتغذون لا بالرضاعة الطبيعية أو الصناعية. عندما تم اختبار تاثير المضادات الحيودة، أوضحت الدراسة أنّ مع دل حدوث الاصابة كان أعلى في الذين تعاطوا المضادات الحيوية (26.9%)، بينما قلّت هذه النسبة في غير المستخدمين للمضادات الحيوية (14.3%). لا قد أوضحت نتائج هذا البحث أن أسباب الإسهال وسط الأطفال ليست بكتيرية بل نتيجة للإصابة بفيروس الروتا. خلصت الدراسة إلى أن التشخيص الدوري لفيروس الروتا للاطفال الذين يعانون من الاسهال الحاد يساعد على تحديد العلاج المناسب، يمنع الاستخدام غير الضروري للمضادات الحيوية ويرقل من انتشار المرض.

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