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**Burden of acute gastrointestinal infections in Ouagadougou, Burkina Faso**

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Gastrointestinal infections are one of the major health problems in developing countries. The present study aims to estimate the prevalence of gastrointestinal infections in Ouagadougou, the capital of Burkina Faso. A door-to-door survey of selected residents in Ouagadougou city was conducted. Of the Ouagadougou's 30 districts, nine most populated ones were selected to the study. The residents of these districts have middle incomes as those of the secondary cite of Burkina Faso. The overall prevalence of gastrointestinal infections in the 30 days prior to the interview was 77/491 (15.7%): among children 44/223 (19.7%) and among adults 33/268 (12.3%). Diarrhoea and abdominal pain were the most common symptoms among 33 adult cases while diarrhoea and vomiting were the most common among children. None of the cases were hospitalized and a stool sample was taken in three of 77 cases. Medication for gastrointestinal infections was received by 55% of adults and 77% of children. Our results shown that antibiotics with and without prescription were the most common medicine used. Washing hands before meals and boiling milk before drinking had a protective effect against gastrointestinal infections.

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**Molecular study of Cytomegalovirus infection among children with end stage renal diseases undergoing dialysis; pilot study**

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Cytomegalovirus is considered as an opportunistic infection affecting immunocompromized patients. Children with end stage renal diseases requiring dialysis is among affected population by this virus. The aim of the present study was to detect and compare the seroprevalence of CMV and CMV antigen pp65 with real time polymerase chain reaction (PCR) among children with end stage renal diseases undergoing dialysis. The study is a prospective case - control study. The forty one patients included in the studied are registered in the hospital for regular dialysis waiting for renal transplantation. The study included forty one healthy controls with same age and gender distribution. Blood samples were obtained from studied children and subjected for determination of specific immunoglobulin M and G for CMV (IgM-CMV, IgG-CMV) by Elecys system and CMV-DNA determination by real time polymerase chain reaction (PCR) and for PP65 antigenaemia test by light diagnostic CMVpp65. CMV-IgM was significantly detected frequently ( $P=0.0001$ ) in 12.2% of the patients and in 2.4% of the control children. Moreover, IgG-CMV was significantly more frequently detected in patients ( $P=0.0001$ ) than in control (90.2%&31.7% respectively). CMV-DNA was significantly ( $P=0.0001$ ) detected in 12 patients (29.3%) compared to the control (2.4%), while CMVpp65 was detected among 4 children (9.8%) compared to one child in the control group. The comparison between IgM-CMV and real time PCR revealed that 30.7% of positive samples by PCR had positive IgM-CMV, while IgG-CMV was associated with 84.6% of positive PCR. CMVpp65 correctly identified all negative samples compared to PCR, while the majority of negative PCR was also negative for IgM-CMV (98.6%). Moreover, all negative children for CMVpp65 was also negative by PCR (100%) For the validity of different CMV markers, IgG-CMV was the most sensitive test (84.7%), CMVpp65 was the most specific test 100%. From this study we concluded that CMV is a common viral infection among children with end stage renal diseases requiring dialysis. The diagnostic performance of real time PCR is the gold standard technique in diagnosis of this infection. CMVpp65 antigenemia is a specific accurate test for laboratory diagnosis however, it lacks sensitivity. Specific IgG for CMV is good screening diagnostic test.

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