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**Umbilical cord infection in neonates born at term and hospitalized at a mother and child reference center in Cameroon**

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**Background:** Umbilical cord infections are a main cause of neonatal morbidity and mortality. Due to this, dressing of the umbilical cord should be done with the necessary aseptic conditions. The absence of a protocol in practicing this dressing is a fault in our context. In Cameroon, no study on dressing of umbilical cord had been carried out so far. We thought it wise to carry out a study with the objective of ameliorating the quality of dressing of the umbilical cord at the Chantal Biya Mother and Child Center in Yaounde, Cameroon.

**Methods:** We carried out a longitudinal and prospective study from July 2007 to December 2007, in the neonatology unit of the Chantal Biya Mother and Child Center. It involved neonates born at term and hospitalized in our unit who met up with the inclusion criteria of the study. We used two methods of dressing the umbilical cord: Open versus close dressing. The only antiseptic used to disinfect the umbilical cord was alcohol at 70°. Data was analyzed using the Epi info statistical software version 6.04.

**Results:** One hundred neonates born at term were included in our study. The male neonates represented 67% of our study population. The occurrence of complications like hemorrhage or swelling was independent of the type of dressing. We did not have a case of infection in our series. In a majority of neonates, the fall of the umbilical stump occurred between 5-15th day. The duration of fall of the umbilical stump was influenced by the type of dressing. The duration of scarring was independent of the type of dressing. The cost of open dressing was less than that of closed dressing.

**Conclusion:** The method of dressing the umbilical cord of neonates, by exposing the umbilical stump to open air, is the method chosen for the dressing of the umbilical cord of neonates because it is efficient [the duration of the fall is shorter than the closed method] and less costly [there was a significant reduction in the cost]. The occurrence of umbilical swelling, infection, hemorrhage and duration of scarring were not significantly different.

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**Gastrointestinal infections in Ghanaian children – disease agents and associated symptoms**

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**Background:** Especially in developing countries little is known about the frequency of circulating gastrointestinal pathogens and their contribution to the overall morbidity and mortality burden. Aim of the current analysis was to study the frequency of pathogens in stool samples and the disease symptoms associated with these pathogens in children living in a rural district in Ghana.

**Methods:** Stool samples were taken from children (<15 years) with gastrointestinal symptoms (GIS) admitted to the Agogo Presbyterian Hospital, in the Ashanti Region, Ghana, between May 2007 and November 2008. Furthermore, everyday randomly selected children without GIS were asked to provide a stool sample to serve as study controls. Frequencies were calculated to describe the distribution of pathogens within the study area. A case-control study was applied to describe the distribution of pathogens between symptomatic and asymptomatic patients.

**Results:** Stool samples were taken from 1,293 children (787 cases and 506 controls). Most frequent isolates were *Giardia lamblia* (34.3%), *Shigella* (25.3%), *Campylobacter* (20.0%), *Blastocystis hominis* (13.8%), and Norovirus (11.0%). The age of the children differed strongly between the infections. Norovirus, Rotavirus, and *Cryptosporidium parvum* frequently affected younger, whereas *Entamoeba coli* and *Hymenolepis nana* were more often found at older ages. In the case control study Rotavirus (OR 13.3; CI 4.9-50.5), Norovirus (OR 2.2; CI 1.5-6.1) showed positive associations with GIS. Some parasitic infections were inversely associated with GIS, including *Giardia lamblia*, *Blastocystis hominis*, *Entamoeba coli*, and *Chilomastix*.

**Conclusion:** The study showed the predominance of bacterial as well as parasitic infections in stool samples; GIS, however, is especially associated with viral pathogens. The general use of antibiotics to treat GIS is not supported through these findings. In order to develop treatment and diagnostic guidelines further factors like age, current co-infections and exposure history should be considered.

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