CLIPPINGS

Protective effect of natural rotavirus infection in Indian children (*N Engl J Med 2011; 365(4):337-46*)

More than 500,000 deaths are attributed to rotavirus gastroenteritis annually worldwide, with the highest mortality in India. Two successive, naturally occurring rotavirus infections have been shown to confer complete protection against moderate or severe gastroenteritis during subsequent infections in a birth cohort in Mexico. In this study the protective effect of rotavirus infection on subsequent infection and disease in a birth cohort in India was studied (where the efficacy of oral vaccines in general has been lower than expected).Children at birth in urban slums in Vellore were recruited. They were followed for 3 years after birth, with home visits twice weekly. Stool samples were collected every 2 weeks, as well as on alternate days during diarrheal episodes, and were tested by means of ELISA and PCR assay. Serum samples were obtained every 6 months and evaluated for seroconversion, defined as an increase in the IgG antibody level by a factor of 4 or in the IgA antibody level by a factor of 3. Rotavirus infection generally occurred early in life, with 56% of children infected by 6 months of age. Levels of reinfection were high, with only approximately 30% of all infections identified being primary. Protection against moderate or severe disease increased with the order of infection but was only 79% after three infections. With G1P, the most common viral strain, there was no evidence of homotypic protection.

EDITOR'S COMMENTS: *Appears to be a well-timed opening stroke in the crusade against universal rotavirus vaccination in Indian Settings, with available evidence.*

Early refeeding for acute diarrhea (*Cochrane Database Syst Rev.2011 Jul 6;(7):CD0072*)

Acute diarrhea is one of the principal causes of morbidity and mortality among children in low-income countries. The cornerstone of treatment is oral rehydration therapy and dietary management. However, there is a lack of data and studies on both the timing and type of feeding that should be adopted during the course of the illness. This systematic review compared the efficacy and safety of early and late reintroduction of feeding in children with acute diarrhea. Randomized controlled trials of early versus late refeeding among children with acute diarrhea were selected. Early refeeding was defined as within 12 hours of start of rehydration and late refeeding was defined as more than 12 hours after start of rehydration. Twelve trials involving 1283 participants were included; 1226 participants were used in the analysis (724 in the early refeeding group and 502 in the late refeeding group). Significant heterogeneity was noted in the data for the duration of diarrhea. There was no significant difference between the two refeeding groups in the number of participants who needed unscheduled intravenous fluids, who experienced episodes of vomiting and who developed persistent diarrhea .

EDITOR'S COMMENTS: *Terminology 'refeeding' in diarrhea needs to be replaced by 'continued feeding'. Feeding need not be stopped in diarrhea; and thus the debate 'When to restart' appears meaningless.*

Measles vaccination and HIV infection (*J Infect Dis 2011 Jul; 204 Suppl 1:S164-78*)

Measles control may be more challenging in regions with a high prevalence of HIV infection. HIV-infected children are likely to derive particular benefit from measles vaccines because of an increased risk of severe illness. However, HIV infection can impair vaccine effectiveness and may increase the risk of serious adverse events after receipt of live vaccines. This systematic review was conducted to assess the safety and immunogenicity of measles vaccine in HIV-infected children. Thirty-nine studies published from 1987 through 2008 were included. In 19 studies with information about measles vaccine safety, more than half reported no serious adverse events. Among HIV-infected children, 59% were seropositive after receiving standard-titer measles vaccine at 6 months, comparable to the proportion of seropositive HIV-infected children vaccinated at 9 and 12 months. Fewer HIV-infected children were protected after vaccination at 12 months than HIV-exposed but uninfected children.

EDITOR'S COMMENTS: *Meta-analyses of systematic reviews often generate more controversy than provide a concrete answer. Moral: Use thy common sense. The answer shall be the same!*

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