

disease (using the method of Riepenhoff-Talty *et al.*, *J. Med. Virol.* 1981, 8, 212–222) in 47 children aged 6–24 months, admitted with serotype 1 illness, 15 with serotype 2 and 46 with serotype 4. Serotype 1 strains were subdivided into monotypes 1A and 1C. Monotype 1C strains were electropherotyped. There were no statistically significant differences in symptoms between

serotype 1, 2 or 4 infections, nor between monotypes 1A and 1C, nor between electropherotypes. The same serotype caused similar disease severity in different years. It is logical to aim for stimulation of immunity against all common serotypes in a rotavirus vaccine.

Intestinal protection against challenge with transmissible gastroenteritis virus of pigs immune after infection with the porcine respiratory coronavirus

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In 1984, a porcine respiratory coronavirus (PRCV) has emerged, which is antigenically closely related to the enteropathogenic transmissible gastroenteritis virus (TGEV). PRCV replicates in epithelial cells in the respiratory tract and not in enterocytes in pigs of 5 weeks old or older. An infection with PRCV induces antibodies which neutralise TGEV and PRCV to the same titer. It was determined if PRCV-immune pigs showed an intestinal protection against TGEV. Therefore, 6-week-old seronegative pigs were inoculated by aerosol or intragastrically with PRCV and were challenged with TGEV

4 weeks later. TGEV-replication and/or -excretion could not be demonstrated for longer than 2 and 4 days after PRCV inoculation by aerosol and intragastrical, respectively. Non-immune pigs excreted TGEV over 6 days. The TGEV-challenge induced rapidly a 4- to 139-fold rise in virus neutralising antibody titers in most PRCV-immune pigs. Experiments are in progress to elucidate the mechanism by which a PRCV-infection induces a partial intestinal immunity against a TGEV-infection and to examine if this immunity also is induced in the presence of maternal PRCV-antibodies.

Studies on immune responses and interference of oral polio vaccine (OPV) on seroconversion to rotavirus vaccine

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A randomized double blind placebo controlled trial of tetravalent human-rhesus reassortant rotavirus vaccine was conducted in 330 infants to evaluate safety, immunogenicity and whether simultaneous administration of OPV and rotavirus vaccine results in impaired seroconversion. Three doses of vaccine (4×10^4 pfu) were given to infants aged 2, 4 and 6 months with oral or parenteral polio vaccine. Possible vaccine reactions were recorded. A seroconversion was defined as a

four-fold or greater rise in sera titre of IgA ELISA from pre-vaccination and post-dose 3. Results showed seroconversion of 12.9% in controls. In rotavirus vaccine group 55.4% were seroconverted while 38.9% of infants receiving rotavirus vaccine and OPV were seroconverted. The study showed an interference of OPV with RRV-tetravalent immune response ($p = 0.037$). No reactions could be attributed to the rotavirus vaccine.