

Fecal antibody responses to symptomatic and asymptomatic rotavirus infections

Matson, David O.

O?Ryan, Miguel L.

Herrera, Ismael

Pickering, Larry K.

Estes, Mary K.

The role of anti-rotavirus fecal IgA (RVflgA) in protecting children against natural rotavirus infections is unclear. Rotavirus outbreaks occurred in each of four day care centers attended by 129 children; 42% of the infections were asymptomatic. RVflgA titers were measured by EIA before infection and 4 weeks later in 50 children who excreted rotavirus (excretors) and in two samples 4 weeks apart from 50 children without detected virus excretion (nonexcretors). Fortythree (86%) excretors and 18 (36%) nonexcretors had a fourfold or greater RVflgA titer rise. Preexposure RVflgA titers were higher in not infected than symptomatic ($P = .002$), asymptomatic than symptomatic ($P = .036$), and not infected than asymptomatic children ($P = .07$). RVflgA titers after asymptomatic infections were slightly higher than after symptomatic infections ($P = .087$). In summary, higher RVflgA titers were associated with protection against infection and illness and increased fourfold or more in both asymptomati