Is the likelihood of persistence of foot-and-mouth disease virus in cattle age related?

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Cattle infected with foot-and-mouth disease virus (FMDV) may develop vesicular lesions on the skin of the feet and in and around the mouth. Specific antibodies elicited by infection peak around 10-14 days after infection and may remain detectable for several years. Although FMDV is cleared from the circulation quickly it can be detected in epithelium for up to 14 days and in some animals for much longer from the pharyngeal region. Some cattle exposed to FMDV become carriers which are defined as animals that have FMDV in their oesopharyngeal (OP) fluids for at least 28 days after infection. In our studies with cattle experimentally infected with an English isolate of FMDV, UKG 34/2001, the incidence of persistently infected animals appeared to be higher in older animals. About 50% of older cattle became persistently infected compared to only about 20% in cattle less than 3 months of age at the time of inoculation or contact infection. The viral loads in the blood, nasal and salivary fluids, and OP samples were compared. These preliminary observations may suggest that the development of persistence is more likely after a certain age, but further experimental evidence needs to be gathered to confirm this.