Classical swine fever virus infection modulates serum levels of INF-α, IL-8 and TNF-α in 6-month-old pigs

Several studies have highlighted the important role of cytokines in disease development of classical swine fever virus (CSFV) infection. In the present study, we examined the kinetics of 7 porcine cytokines in serum from pigs infected with 3 different CSFV strains. Based on the clinical picture in 6-month-old Danish pigs, the strains used for inoculation were classified as being of low (Bergen), low to moderate (Eystrup) and moderate to high (Lithuania) virulence. The cytokines interferon-alpha (INF-α), interleukin-8 (IL-8) and tumor necrosis factor-alpha (TNF-α) showed increased levels after CSFV infection with more or less comparable course in the 3 groups. However, the cytokine level peaked with a 2–3 days delay in pigs infected with the low virulent strain compared to those infected with a moderately or highly virulent strain. These findings may indicate that INF-α, IL-8 and TNF-α are involved in the immune response during CSFV infection with strains of different virulence.

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