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Abstract

An immunohistochemical study of the tonsils was carried out to gain further insight in the pathogenesis of acute African swine fever (ASF). Twenty-one pigs were inoculated by intramuscular route with a highly virulent isolate of ASF virus and painlessly killed at 17 dpi. Viral antigen was highly distributed in the tonsil from 3 to 4 dpi and an increase in the number of monocyte-macrophages was very evident at the same days post inoculation. This phenomenon was observed together with an increase of the expression of proinflammatory cytokines (Tumour necrosis factor alpha and Interleukin-1 alpha) and the apoptosis of lymphocytes studied by the terminal deoxynucleotidyltransferase-mediated dUTP nick end labelling (TUNEL) technique and haemorrhages. With these results, we can conclude that the tonsil is suffering similar lesions than those observed in other lymphoid organs in acute African swine fever, even when the route of inoculation is the intramuscular and not oral-nasal.

Keywords:

African swine fever; Immunohistochemistry; Tonsil; Apoptosis; Cytokine

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