



EQUINE

Abstract presentations



Acute phase proteins, Proinflammatory cytokines and cardiac troponin I in Horses with Strangles

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The objective of this study is to investigate the diagnostic and prognostic importance of cardiac troponin I (cTnI) and acute phase proteins (APPs) in horses suffering from strangles. Forty-nine cases with clinical and laboratory evidence of strangles and 21 healthy control horses were included in this study. Serum samples from both case and control horses were tested for the levels of cTnI, creatinine kinase (CK), aspartate aminotransferase (AST), alanine aminotransferase (ALP), Haptoglobin (Hp), serum amyloid A (SAA), tumor necrosis factor-alpha (TNF- α) and interleukin-6 (IL-6). The levels of cTnI, Hp, SAA, TNF- α and IL-6 were significantly ($P < 0.05$) higher in cases compared to control horses. Successfully treated cases had significantly lower levels of cTnI, CK, ALP, AST, TNF- α , and IL6 compared to non-responsive ones. Cases with complications ($n=13$) had significantly higher levels of cTnI, CK, ALP, TNF- α , and IL6 compared to cases without complications. Cases were positively correlated with cTnI, CK, ALP, AST, Hp, SAA, TNF- α , and IL6 levels. Treatment success was negatively correlated with cTnI, CK, ALP, AST, TNF- α , and IL6 levels. Conclusively, APPs and cTnI could be used as diagnostic and prognostic markers for strangles in horses. The level of cTnI suggests that cardiac injury could occur in some horses with strangles.

Keywords: *Streptococcus equi*, strangles, heart, serum amyloid A, haptoglobin