

TROPONIN I EVALUATION IN AN ATYPICAL OUTBREAK OF MULBERRY HEART DISEASE

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Summary

The authors describe an atypical *mulberry heart disease* outbreak non-responsive to Vit. E and selenium therapy. The outbreak has shown a hereditary ethiology (Duroc danish boar).

The haematological parameters, the haematocrit in particular, were not significantly altered.

Total proteins and fractions, albumin and globulins, were constantly among the referring intervals for one month aged piglets.

Lipaemia was tendentially high in these subjects because of the elevated nourishing and energetic potential of the weaning diet.

Glicemia and uremia, both diet depending, showed normal plasmatic concentration.

Hepatic, muscular and renal function were evaluated from the enzymatic activity and the substrates plasmatic concentration. Parameters were among normal ranges that confirmed the cellular integrity of the organs. One subject, that then died, presented a significantly higher concentration of Troponin I (cTnI) than the others of the same age that didn't show any sign of the disease, and than the referring standards for this species.

Ca/P and Na/K balances were normal even if the last one was a little lower. This variation can support the hypothesis of a myocardial disfunction.

Myocardial lesions were described from necroscopy, but one subject was tested *intra vitam* for Troponin I, which is a myocardial acute damage marker. CK enzymatic activity of the same subject was not significant because it was similar to the other control subjects.

CK activity is in contrast with the early and specific myocardial damage parameters that Troponin I gives, probably because of the increased enzyme clearance, already observed in humans after myocardial necrosis.

In conclusion, in our preliminary experience, the data indicate Troponin I as a sensitive marker of heart damage in piglets as well as in humans in comparison to CK activity.