IGF-1 concentrations in the blood of foaling mares during the lactating phase with special regard to postpartal fertility

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ABSTRACT

The aim of this project was to follow up the postpartal IGF-1 concentration in the blood of foaling mares in correlation to their later fertility. 54 warm-blood mares from large stud farm were used in this study. Blood samples and weight were taken from the day of foaling every two weeks until the time of weaning. IGF-1 in blood-serum was determined by an enzyme immunoassay. IGF-1 concentrations varied significantly during the insemination phase. In fertile mares the IGF-1 levels were significantly higher in comparison to those mares with fertility disturbances. From these results it can be concluded that the status of metabolism (anabolic/ catabolic) during the insemination phase has an important influence on the later fertility. Further studies in this direction seem to be promising. Additionally the influnce of weight, height, p.p. weigth loss and age on the IGF-1 levels are analysed.