

PROGESTERONE, CORTISOL, AND PREGNANCY-ASSOCIATED GLYCOPROTEINS CONCENTRATIONS IN THREE ABORTED COWS



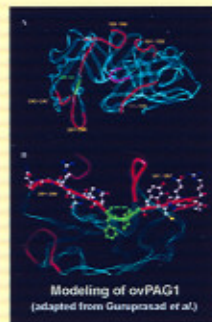
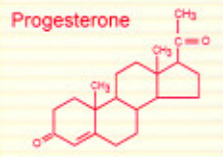
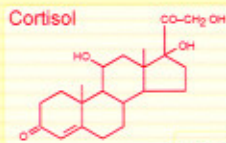
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INTRODUCTION

- Abortion is the expulsion of the foetus before the end of pregnancy.
- Progesterone is originating from the corpus luteum, maternal adrenal and placenta.
- The pregnancy associated glycoproteins belong to the aspartic proteinase family and are synthesized in the ruminant trophoblast.
- Cortisol is synthesized from cholesterol and produced by the adrenal cortex gland.



AIM

The aim of the present study was to follow the hormones and proteins patterns before and after abortion in cows.

MATERIALS AND METHODS

The trial was carried out on three cows. All animals aborted either after an injection of prostaglandin (n=2) or after an infection on the tail. Blood samples were obtained from the tail vein or tail artery of cows two or three times every week and more frequent intervals when abortion occurred. The plasma was separated by centrifugation and stored at -20 C° in plastic tubes until hormones and proteins analysis. Progesterone, cortisol and pregnancy associated glycoproteins were determined by radioimmunoassay techniques.

RESULTS

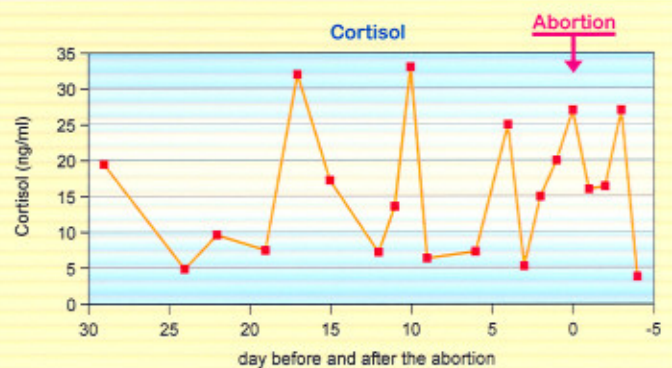
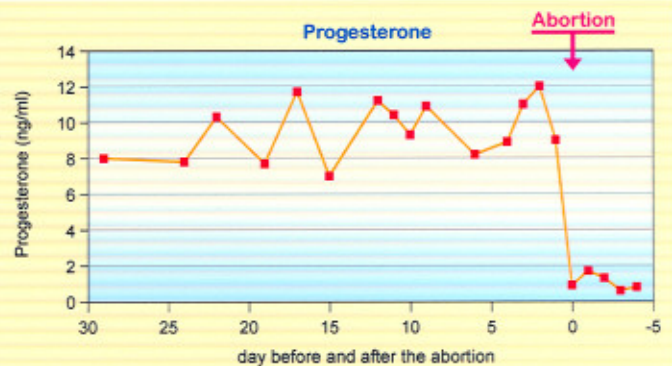
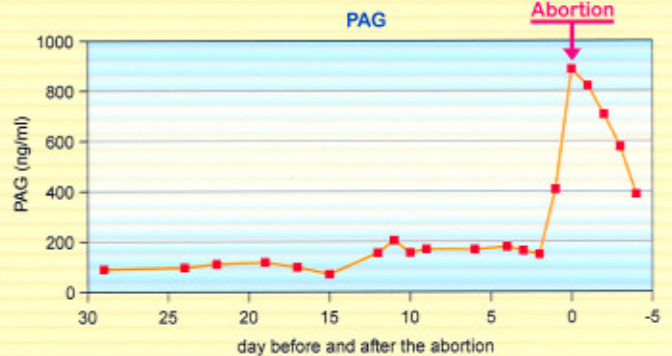
- In all cases the abortion was followed immediately or after 72 hours by a drop in pregnancy associated glycoproteins concentrations.
- In the two cows injected with prostaglandin, placenta was not ejected and the levels of pregnancy associated glycoproteins increased during 72 hours after the day of abortion.
- In the cow presenting the tail infection, the cortisol concentrations showed many peaks with undulating interval between this peaks.
- In all cases low levels of progesterone were seen immediately after abortion the levels ranging from 0.6 ng/ml to 0.9 ng/ml.

REFERENCES

- AP. ZOLI and al 1991 *Biology of Reproduction* 45, 1-10.
- H.KINDAHI and al 2002 *Domestic Animal Endocrinology* 23, 321-328.



Pregnancy-associated glycoproteins, progesterone, and cortisol concentrations in cow 3113 presenting the tail infection.



CONCLUSIONS

- Pregnancy associated glycoproteins are good indicator of ongoing pregnancy in cows
- The cortisol might be an important indicator of stress events in animals.
- The placenta and not the foetus is the most important source of the pregnancy associated glycoproteins in cows.
- The present study could be considered as a preparing for future larger studies on the same subject.