



Preovulatory LH peak and time of ovulation in nulliparous and primiparous goats after male effect



J Simões¹, G Baril², T Cunha³, J Azevedo¹ and R Mascarenhas³

¹CECAV, Universidade de Trás-os-Montes e Alto Douro, Vila Real (Portugal).

²INRA-PRC, Physiologie de la Reproduction et des Comportements, Nouzilly (France).

³INRB, Estação Zootécnica Nacional, Vale de Santarém (Portugal).

E-mail: jsimoes@utad.pt

INTRODUCTION

Differences of time of ovulation between cyclic nulliparous and multiparous goats were observed in our laboratory during the breeding season.

The aim of the present study was to determine the time of preovulatory LH peak and ovulation in anoestrous nulliparous and primiparous goats, after stimulation by male effect.

MATERIALS AND METHODS

Seven nulliparous and eight primiparous Serrana goats were isolated from bucks during nonbreeding season.

Anoestrus was confirmed by circulating progesterone levels.

A 6-day progestagen treatment (Chronogest® 45 mg FGA, Intervet, Holland) was performed to synchronize oestrus on early May.

Vaginal sponges were removed at the time of buck introduction (BI).

Plasma LH levels were determined (ELISA), every 4 h, through 24 h after onset of oestrus.

Total number of ovulations were detected by transrectal ultrasonography, every 8 h, until 44 h.

RESULTS

No significant differences ($P > 0.05$) were observed between nulliparous and primiparous goats for the interval between BI and onset of oestrus (50.6 ± 3.6 h vs 45.6 ± 2.9 h), preovulatory LH peak (54.9 ± 3.2 h vs 55.5 ± 3.8 h) or ovulation (77.7 ± 3.0 h vs 78.3 ± 3.6 h; Fig 1):

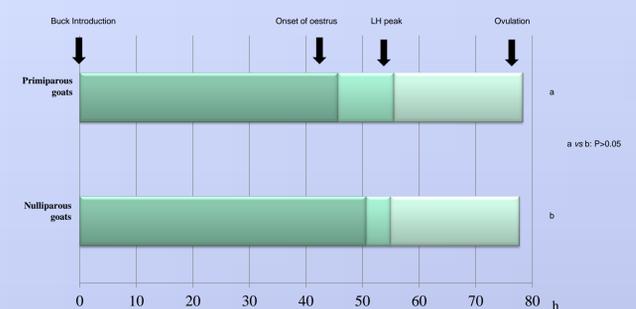


Fig. 1- Onset of oestrus, LH peak and ovulation time after buck introduction.

However, timing differences between onset of oestrus and LH peak or ovulations were observed (Fig 2):

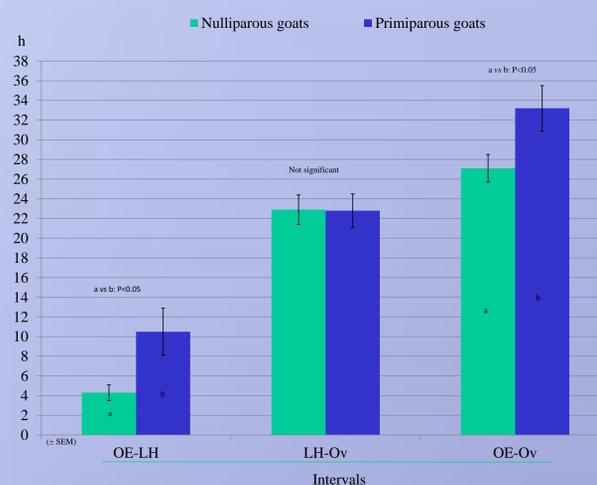


Fig. 2- Onset of oestrus - LH peak (OE - LH), LH peak - ovulation (LH-Ov) and Onset of oestrus - ovulation (OE-Ov) in goats.

References

SIMÕES, J., BARIL, G., ALMEIDA, J.C., AZEVEDO, J., FONTES, P. and MASCARENHAS, R., 2008. Time of ovulation in nulliparous and multiparous goats. *Animal*, 2 (5), 761-776.

CONCLUSIONS

In conclusion, these results showed that nulliparous ovulate, in average, early than primiparous goats regarding the onset of oestrus.