

EFFECTS OF ESTRADIOL VALERATE OR PGF_{2α} ON ESTRUS RESPONSE OF GOATS TREATED WITH NORGESTOMET IMPLANTS

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INTRODUCTION

The association between norgestomet (NOR) implants and estradiol valerate (EV) has been used in small scale in goats (1) and frequently, prostaglandin (PGF_{2α}) replaces EV in the protocols for estrus control (2). This trial compared the efficacy of combinations between NOR/EV and NOR/PGF_{2α} and medroxi acetate progesterone-MAP/PGF_{2α} in short-term treatments to synchronize estrus in goats.

MATERIAL AND METHODS

One-hundred and thirty three mature crossbred goats were allotted into five treatments, as follows: T₁ - 60mgMAP intravaginal sponge for 11 days with an intramuscular injection (i.m.inj.) of 10mg of dinoprost tromethamine (DT_{10mg-im}) on the 9th day; T₂ - 1,5mgNOR implant subcutaneously placed into the ear for 11 days with DT_{10mg-im} on the 9th day; T₃ - 1.5mgNOR for 11 days with an i.m.inj. of 0.75mgNOR/1.25mgEV given at implant insertion; T₄ - 1.5mgNOR for 9 days with DT_{10mg-im} on the 7th day and T₅ - 1.5mgNOR for 9 days with an i.m.inj. of 0.75mgNOR/1.25mgEV. All does received 250 IU of PMSG, 48h before withdrawal of exogenous source of progestogen. Estrus was detected by male teasers and artificial insemination (AI) performed with frozen-thawed semen, 12 to 18 hours after standing estrus.

RESULTS AND DISCUSSION

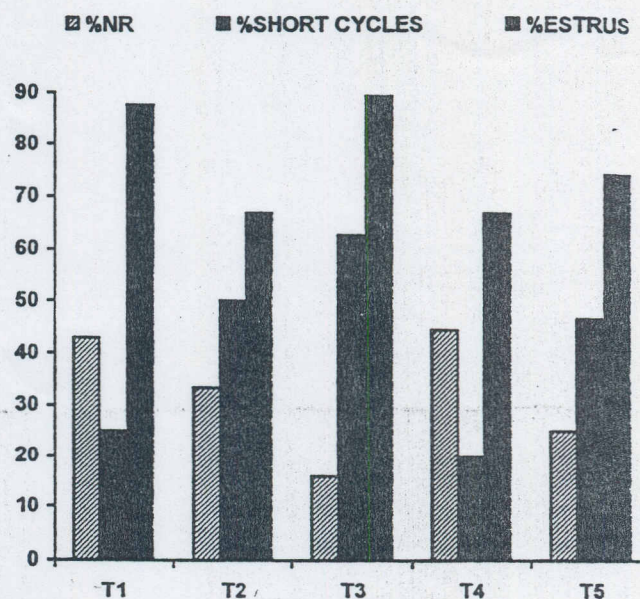
The Table below shows results obtained.

	n	Estrus (%)	Time (h) from progestogen removal to estrus	Non Return (%)	Short cycles (%)
T ₁	24	87.5 ^a	37.7±21,6 ^a	42.9 ^a	25,0 ^a
T ₂	27	66.7 ^a	60.7±44,4 ^b	33.3 ^a	50,0 ^a
T ₃	28	89.3 ^a	36.0±40,0 ^a	16.0 ^a	71,4 ^a
T ₄	27	66.7 ^a	40.7±27,7 ^{ab}	44.4 ^a	20,0 ^a
T ₅	27	74.1 ^a	48.6±40,6 ^{ab}	25.0 ^a	46,7 ^{ab}

a≠b, (P<.05).

No significant (P>.05) differences were observed in percent estrus response. The figure depicts the incidence of short cycles (5 to 6 days) after AI in goats that returned to estrus, showing relation with estrus response. NOR/EV given at the initiation of progestogen treatment showed to be capable to inhibit (or/and demise) the growth of pre-existing corpora lutea. However, subsequent luteal phase was dysfunctional reducing non significantly (P>.05) fertility after AI. Association between NOR/PGF_{2α} was as effective as MAP/PGF_{2α}.

Figure- Estrus response, incidence of short cycles and NonReturn rates across treatments.



REFERENCES

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