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# Cervix dilation and trasncervical embryo recovery in cervical Santa Inês sheep

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The objective of this study was to evaluate cervix relaxation with or without estradiol aiming to collect embryo by non-surgical technique in Santa Inês ewes. A total of 24 pluriparous ewes had estrus induced by intravaginal sponges (60mg MAP, Progespon®, Syntex, Buenos Aires, Argentina) for six day plus 200IU eCG (Novormon 5000®, Syntex, Buenos Aires, Argentina) i.m. and 37.5µg d-cloprostenol (Prolise®, ARSA S.R.L., Buenos Aires, Argentina) latero-vulvar, 24h before sponge removal. The ewes were monitored for estrus detection from sponge removal at 12h interval end bred with fertile rams. Twelve hours after estrous onset, with the aid of Allis forceps, cervix were immobilized for traction and a HEGAR dilator was inserted into cervical ostiun to check the facility of transposing. After this, ewes were equally shared between to treatments according to body condition score and cervical transposing to be subjected to transcervical uterine flushing seven days after estrous onset. In Group (n=12; 6 ewes with cervical transposing), ewes received 37.5 µg d-cloprostenol latero-vulvar and 1mg estradiol benzoate (Estrogin®, São Paulo, Brazil) i.m. 16h before uterine flushing and 50 IU oxytocin (Ocitocina Forte UCB®, São Paulo, Brazil) i.v. 20min before uterine flushing. In Group 2 (n-12; 5 ewes with cervical transposition at estrus), ewes received the same treatment of the G1 but changing estradiol for 1 mL saline. Qualitative variables were analyzed by qui-square and the quantitative analysis of variance to check differences between treatments with means tested by t-test (5%, SAEG®). Parameters evaluated were similar for both groups (P>0.05). Estrous response was 100%. The interval from sponge removal to estrous onset and duration of estrus were 41.5±8.6 and 36.0±10.6 h, respectively. Cervical transposing at estrus was 46% (11/24). Successful uterine flushing was performed in 33% G1 (4/12) and 25% G2 (3/12) ewes. In successful and non-successful uterine flushed ewes 6.0±1.1 and 3.3±1.6 cervical rings were transposed, respectively. All G2 flushed had cervical transposing at estrus. Two successful uterine flushed G1 ewes had no cervical transposing at estrus. The efficiency of uterine flushing (liquid injected / recovered) was 94%. Embryo recovery varies from 0 to 3 structures (1.0±1.1) per flushing. With this study it is concluded that the technique of transcervical collection closed loop is possible in sheep because has satisfactory rate of washing performance. Studies with other agents for cervical relaxation are encouraged.

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