Ram effect previous to progestagen treatment in Serra da Estrela ewes

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Serra da Estrela ewes (n=108) were used to evaluate if previous ram exposure could improve a further progestagen synchronisation protocol in terms of oestrous synchronisation and fertilization rate. Ewes isolated from males for 2 months were allocated in control (C=60) and male effect (ME=48) groups. From D0 to D5 20 aproned males were introduced into ME ewes. Oestrus was synchronised with FGA sponges inserted on D20 and 500 IU of eCG at FGA removal (FGAr; D32). Cervical insemination with refrigerated semen was done 55 h after FGAr. Plasma progesterone (P4) was assayed by RIA on days -14, -10, -7, -3, 0, 3, 5, 12, 20, 27, 32, 34 and 42. In 5 ewes of each group, plasma LH was assayed by EIA each 4 hours, from 44 hours to 68 after FGAr. On ME group the number of cyclic ewes increased (P<0.05) from D0 (31.2%) to D12 (93.8%) and D20 (100%). On C group the number of cyclic ewes increased from D0 (25%) to D20 (46.7%) (P<0.05). Number of cyclic ewes was higher (P<0.05) in ME than C group on D12 (33.3%) and D20. P4 levels on D12 and D20 were higher on ME than on C ewes (P<0.0001). Ovulation synchronisation rates of 90% (C) and 92% (ME) were obtained after FGA protocol (P>0.05). LH levels at 44 h after FGAr were higher than those measured afterwards (P<0.005) with no differences between groups. Fertility was not different between both groups (C=28.3%; ME= 25%). In spite of increasing the number of cyclic ewes before FGA, no further improvement on synchronisation and fertility rate was obtained in ME ewes, suggesting that FGA stimulated acyclic ewes like ME treatment did.