

Evaluation of Progesterone and Estradiol17- β Levels in Ewes Induced with Different Methods

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Abstract : The aim of this study was to show the effects of progesterone and estrogen concentrations in ewes induced with different induction of parturition methods. Twenty-four healthy ewes (n=24) on 138th gestation day were randomly separated according to induction methods (group I (n=6), (0.09% NaCl), group II (n=6) (dexamethasone, 16 mg im.), group III (n=6) (aglepristone 5mg/kg sc.) and group IV (n=6) (aglepristone, 2,5 mg/kg sc.+dexamethasone 8 mg im.). The blood samples of the ewes were collected at 12 hours intervals from induction time to the postpartum 2nd day in order to determine progesterone and estradiol 17- β levels. These hormone concentrations were determined by ELISA, and obtained results were statistically analyzed with Kruskal Wallis and Dunn tests between the groups, and Friedman and Wilcoxon test within the groups. The results pointed out that there was no significant difference within the groups in terms of estradiol 17- β (group 1, p=0.508; group 2, p=0.054; group 3, p=0.672; group 4, p=0,170). And there was only a significant difference at 138th day (p=0,019) between groups II and IV (p=0,010). There was a significant difference in terms of progesterone concentration within group 1, 2 and 4 (p=0.000). And there was a significant difference at all times except 138th day between the groups (p<0.05). As a conclusion, the induction of parturition methods could be performed successfully. These methods have no effect on estradiol 17- β concentration but also make changings on progesterone concentrations as in groups 3 and 4.

Keywords : ewe, estradiol 17- β , induction of parturition, progesterone

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