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HORMONAL AND ENERGETIC PROFILE ON POSTPARTUM AND ITS INFLUENCE ON THE RESUMPTION OF OVARIAN CYCLICITY OF CURRALEIRO PÉ-DURO COWS

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The objective of this study was to evaluate the hormonal and energy profile in the postpartum and associate them with the resumption of ovarian cyclicity, and also to characterize the postpartum short estrous cycle of Curraleiro Pé-Duro cows. Twelve Curraleiro Pé-Duro cows were evaluated by rectal palpation and ultrasound evaluation at 10 days postpartum, every five days for evaluation of uterine involution and daily to evaluate the resumption of ovarian cyclicity. After analyzing the data, it was possible to observe the formation of two different groups, the animals returning to cyclicity within 60 days and animals returning to cyclicity with more than 105 days postpartum. Therefore, animals were divided into two groups, precocious, as Ov Group, and late as NOv Group, wherein the cutting line for all tests was 60 days postpartum. Data evaluation of uterine involution and resumption of ovarian cyclicity were assessed by ANOVA/Tukey. Meanwhile, data from P4, T4, NEFA, BHBA, cholesterol and triglycerides throughout the postpartum were evaluated by Compare Growth Curves method (statmod, R Core Team 2013). The results of energy profile and thyroxine (T4) were also assessed by survival analysis and evaluation of the effect of these metabolites on experimental groups, an analysis of variance (ANOVA), taking into account the effect of days, metabolites and experimental groups was performed to determine the influence of metabolite interaction on group*day. Statistical difference ($P < 0.01$) occurred only for the day of 1st ovulation, which in the Ov Group averaged 51.4 ± 9.3 days and in the NOv Group averaged 138.3 ± 19.8 days postpartum. The other postpartum short estrous cycle variables assessed did not differ ($P > 0.05$) between groups. NEFA, BHBA and thyroxine did not differ ($P > 0.05$) between groups for none of the statistical analyses. However, the analysis of comparison of growth curves, triglycerides was higher in Ov Group ($P = 0.04$) and cholesterol was higher in the NOv Group ($P = 0.02$). In this experiment, a small influence of negative energy balance between the groups was observed, suggesting that these animals can present a high genetic variability due to natural selection process, evidenced by the formation of groups of animals with precocious and late reproductive characteristics.

Keywords: Short Estrous Cycle; Locally Adapted Breed; Genetic Resources

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