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METABOLIC CHARACTERISTICS OF THE POSTPARTUM OF CURRALEIRO PÉ-DURO COWS

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The postpartum period is extremely important for reproductive and metabolic physiology of animals. Reproductively, because cows undergo anatomical and hormonal changes necessary for the restoration of the entire genital apparatus so they can be prepared for a new pregnancy. And metabolically due to high nutritional requirements, that animals pass through high energy demand after calving, for the production of colostrum and milk for nourish the newborn. The objective of this study was to assess the energy and lipid profile, metabolic hormonal profile, protein profile and liver and kidney functions of Curraleiro Pé-Duro cows in different periods of postpartum, comparing the metabolic changes in the calving day to 75 days postpartum. 12 Curraleiro Pé-Duro cows had their blood collected by jugular venipuncture on the day of delivery, and at 5, 15, 30, 45, 60 and 75 days postpartum. Data were evaluated using generalized linear models and regression analysis, comparing the periods of postpartum, for this, it was assumed that: Early postpartum corresponds to the period between calving and 15 days postpartum; Initial post partum corresponds to the period of 15 days after calving to 45 days postpartum; and Middle postpartum corresponds to the period of 45 days postpartum to 75 days postpartum. For the energy/lipid profile, NEFA, bHB and thyroxine did not shown variation in its concentration ($P>0.05$), triglycerides and cholesterol showed an increase in Early postpartum ($P<0.05$). On the protein profile, albumin and urea concentrations decreased in Early postpartum ($P<0.05$), whereas TPP only presented this fall in Middle postpartum, along with creatinine, which demonstrated the same behavior. The other metabolites evaluated showed no variation in their concentrations ($P>0.05$). Curraleiro Pé-Duro cows showed great resistance to negative energy balance, which lasted for a short time and soon we could see the beginning of the formation of fat reserves in the animals at Early postpartum. These results in the future may serve as normal parameters of hormonal and metabolic profile variation for Curraleiro Pé-Duro cows throughout the postpartum, and may serve as aid for nutritional adequacy and management practices in the Conservation Nuclei of this breed.

Keywords: Metabolic Profile; Locally Adapted Breed; Energy Balance; Conservation; Genetic Resources.

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