PROTEINOGRAM OF NEWBORNS GOATS SAANEN FROM BIRTH TO 15 DAYS OF LIFE, SUBMITTED TO DIFFERENT MANAGEMENT OF COLOSTRUM

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The ingestion of colostrum in the first hours of life is essential for ruminant neonates born hypogammaglobulinemic or agammaglobulinemic. The determination of serum immunoglobulin levels of domestic ruminants, has been used to monitor the immunity acquired by the ingestion of colostrum, since the failure of passive transfer is directly related to higher rates of mortality. The effectiveness or failure of this transfer can be diagnosed by estimating the levels of immunoglobulins in the blood or serum of the neonate. Measurements of total protein (TP) and globulin are indirect methods to determine the concentration of immunoglobulins. The aim of this study was to determine the protein profile of newborns undergoing different colostrum management by electrophoretic fraction of serum proteins in cellulose acetate tape and total protein. We used 32 goats, Saanen, from birth to 15 days life, divided into four groups: G1 (n = 8) - received fresh goat colostrum, G2 (n = 8) - received warm goat colostrum 56 º C for 60 minutes; G3 (n = 8) - received bovine colostrum, and G4 (n = 8) - received cow’s milk. For the evaluation of treatments, were collected venous blood samples at the following times: time T0 (before intake of colostrum) T1 (48 h post-birth - pn), T2 (72-96h pn), T3 (168-192h pn) and T4 (336-360h pn). The results were (g / dl): albumin 2.47 ± 0.52 to 3.13 ± 0.57, alpha globulins 0.32 ± 0.21 to 0.67 ± 0.14, beta globulin 0.55 ± 0.14 to 0.92 ± 0.10, gamma globulin 0.10 ± 0.03 to 2.29 ± 0.97, total protein, 4.21 ± 0.54 to 7.11 ± 1.80. It was concluded that the management of colostrum applied to Group 4 promoted the lowest rates of total protein, while groups 1 and 2 had the highest rates of total protein, group 1 maintained higher rates. The technique of electrophoresis strip of cellulose acetate was efficient to show those that presented failure of passive transfer of immunity, particularly the rates of beta and gamma globulins.

Keywords: Newborn goat, proteinogram, electrophoresis and colostrum management