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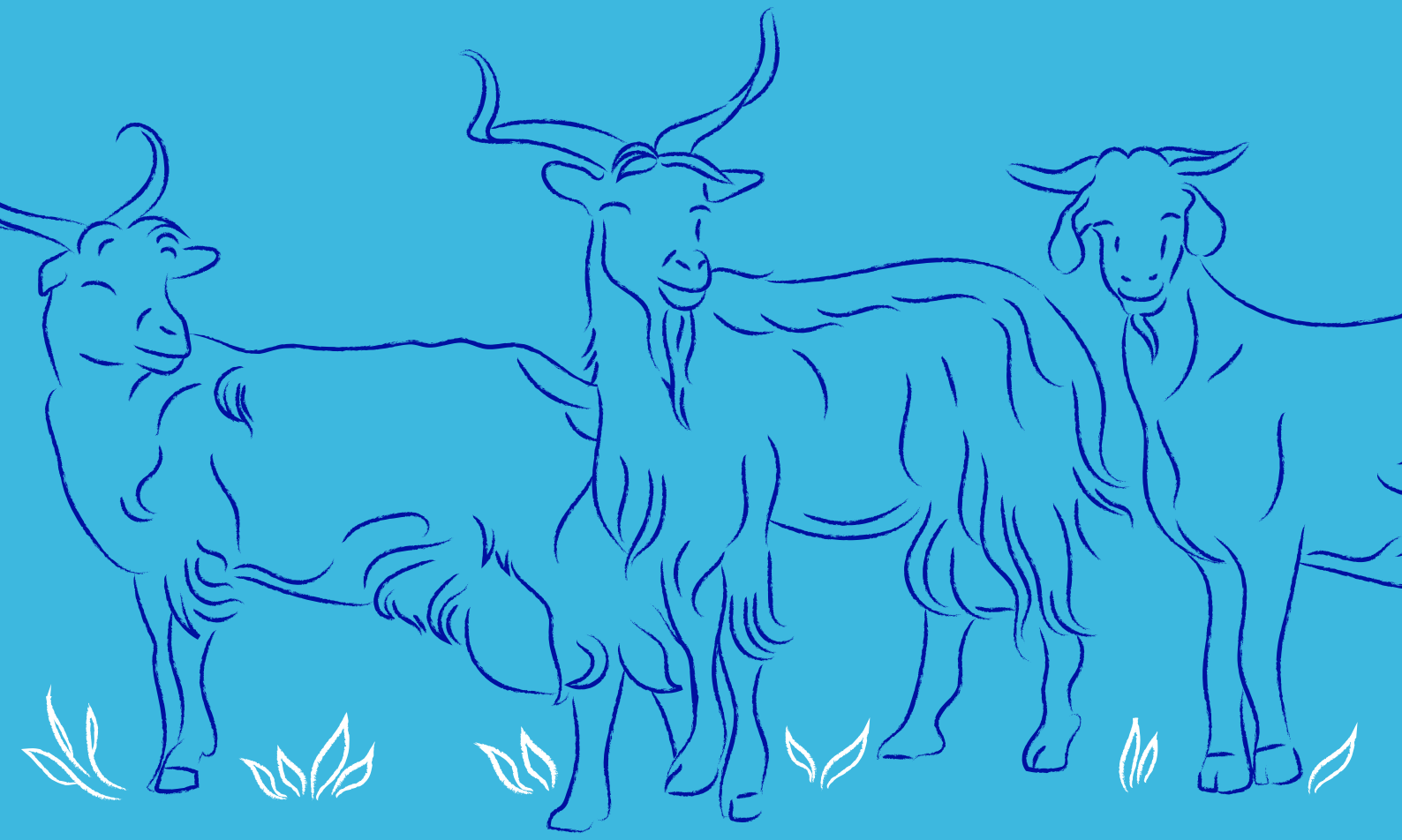

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Evolution of white and red blood cells in dairy goats around parturition

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This study investigated changes in white and red blood cells around parturition to identify those periods with higher susceptibility to infectious diseases. Thus, 31 multiparous and pregnant Majorera dairy goats were used. Plasma collection tubes containing EDTA (9 ml) were used to collect blood samples from the jugular vein on day -21, -15, -7, 0, 1, 2, 3, 5, 10, 15 and 30 relative to parturition. Blood samples were analysed with an Automatic Haematology Analyzer to determine white and red blood cell concentrations. The data was analysed using the PROC MIXED procedure of SAS and the significance was set as $p< 0.05$. The results showed increased leucocyte concentration at parturition (d 0; $p< 0.001$), although lymphocyte concentrations were not affected ($p= 0.24$) during the entire experimental period. Monocyte concentrations increased on d -3 relative to parturition, decreasing on d 1 and 2 postpartum ($p= 0.002$). Granulocyte concentration increased at d 0 ($p< 0.002$). Therefore, it seems that increased leukocyte concentrations at parturition are caused by increased concentrations of monocytes and granulocytes around this period. In addition, red blood cells as well as hemoglobin concentration and hematocrit decreased constantly from d-21 to d 30 relative to parturition ($p< 0.001$). In conclusion, it seems that the activity of the cellular immune response is increased around parturition in dairy goats.