

Cytological characteristics of the synovial fluid of the carpus in mixed-breed goats

Moraes, MFD.¹, Oliveira, D.¹, Mendonça, CL.¹, Duarte Neto, PJ.¹,
Maciel, TA.¹, Castro, RS.², and Cattelan, JW.³

¹Unidade Acadêmica de Garanhuns

²Universidade Federal Rural de Pernambuco

³Faculdade de Ciências Agrárias e Veterinárias, Universidade Estadual Paulista

The carpus joint in goats is the site of a number of illnesses. Caprine arthritis-encephalitis, commonly known as “big knee”, has considerable economic impact, causing pain and a reduction in range of movement. In more severe cases, animals may walk with the carpus flexed or remain in a lying position. A large number of researchers have studied this and other conditions involving joints in goats, but there are few studies on the normal values of assessment parameters for the synovial fluid in the carpus joint of goats, which hampers the interpretation of results. The aim of the present study was to contribute knowledge on the normal parameters of synovial fluid in the carpus of adult goats. A cytological analysis was carried out on the synovial fluid of the carpus of 25 mixed-breed goats that presented no joint disease in clinical and serological exams. Synovial fluid was collected from the mediocarpeae joint and antebrachioarpeae joint, by the medial side, with 25 x 8 needle and 5 mL syringe. The cytological parameters analyzed were global and differential white blood cell counts. The mean global count was 52 leukocytes. μL^{-1} , with a minimum value of 20 cells. μL^{-1} and a maximum of 112 cells. μL^{-1} . In the differential count, a prevalence of lymphocytes was observed in relation to the other cell types encountered, representing 59.5% of the total, with values ranging from 1 to 53 cells. μL^{-1} . The large mononuclear cells represented 35.8%, with the absence of such cells on some slides, whereas others had counts of as much as 44 cells. μL^{-1} . The other leukocytes had low frequencies: neutrophils (2.2%; mean of one neutrophil. μL^{-1}); monocytes (1.6%; most samples had an absence of monocytes); and macrophages (1% of the samples). Considering the lack of reference values regarding cytological characteristics of the synovial fluid in the carpus of goats, it is suggested that the values obtained in the present investigation be considered normal for adult mixed-breed goats.