Global hemostasis of pregnant bitches
Sigal Klainbart DVM, DACVECC, Itamar Aroch, DVM, DECVIM, Tal Raz, DVM, PhD, DACT, Smadar Tal, DVM, DACT, DECT.
Koret School of Veterinary Medicine, The Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem. P.O. Box 12, Rehovot, 761001, Israel
klainbart@gmail.com

Hemostatic alterations, such as hypercoagulability manifested by activation of coagulation and fibrinolysis might lead to bleeding and thromboembolic complications or obstetric disseminated intravascular coagulation (DIC) occurs in pregnant women. Such hemostatic changes include increased concentrations of most clotting factors and decreased natural anticoagulants levels and fibrinolytic activity and decreased platelet count. These changes are hypothesized to occur in order to decrease the likelihood pregnancy and delivery-related hemorrhage. Certain hemostatic alterations were also described in pregnant bitches, including hyperfibrinogenaemia and increased fibrinogen degradation products concentration. In contrast to pregnant women, these hemostatic changes in pregnant bitches were not linked to their hormonal status, but are thought to be associated with inflammation, induced by presence of the fetus in the uterus. To the best of our knowledge, comprehensive data of the global hemostatic status of pregnant bitches are unavailable. The aims of the present study were to characterize the global hemostasis status (namely, platelet count, prothrombin time, activated partial thromboplastin time, D-dimer, fibrinogen, anti-thrombin III, and thromboelastography) of pregnant bitches during the first and second halves of pregnancy and various estrous cycle periods (i.e., proestrus, estrus and diestrus) and assess if hemostatic changes occur during pregnancy, and if these are related to serum progesterone concentration and presence of the fetus in utero.