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Hematological parameters and serological detection of canine hemoparasitoses with SNAP 4DX

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ABSTRACT

Introduction: The SNAP 4Dx is a rapid test device that uses ELISA (Enzyme-Linked Immunosorbent Assay) technology manufactured by the IDEXX Laboratory (Maine, USA) for rapid diagnosis of hemoparasitosis in dogs. SNAP® ELISA technology utilizes unique conjugate and substrate that amplifies the results. The bidirectional flow process evidences the antigen-antibody binding, providing high sensitivity and reliable results. **Objective:** evaluation of hematological parameters and serological detection of hemoparasitoses in dogs with Snap 4Dx. **Methodology:** A cross - sectional, descriptive and observational clinical research was carried out between September 2014 and October 2014 at Pet Dream Veterinary Medical Clinic, located in the city of Recife / PE. The hemogram was performed using a manual technique using blood collected with EDTA. The detection of the antigen of *Dirofilaria immitis* and the antibodies of *Anaplasma phagocytophilum*, *Anaplasma platys*, *Borrelia burgdorferi*, *Ehrlichia canis* and *Ehrlichia ewingii*, was performed with SNAP 4DX Plus device. **Results and Discussion:** 62 dogs of different races were used, without specifying age or sex, attended at the Clinic. The blood samples were collected by venipuncture cephalic or jugular, according to the size of the animal. The samples were packed in eppendorf microtubes containing EDTA as anticoagulant. The differential count was performed through blood smearing, stained in panopticus, observed with a 100X immersion objective. The rapid test for serological diagnosis showed the following result: *Ehrlichia canis* (32.25%), *Anaplasma platys* (6.45%), *Dirofilaria immitis* (6.45%). **Discussion:** The results found in the present study suggest that the 4DxPlus Kit was efficient for the diagnosis of hemoparasitoses, which cause diseases in small animals. **Conclusion:** hematological changes were varied, but thrombocytopenia was the main alteration. The animal with thrombocytopenia may present it silently or start to have symptoms such as: bleeding on the skin; nose bleeds; fever; cough; lethargy; urinary bleeding.

Keywords: *Anaplasma platys*; *Ehrlichia canis*; ELISA; Hemoparasitose; SNAP 4DX

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