

Comparative ionogram assessment before and after probiotic treatment for healthy dogs and dogs with apparent dysbiosis

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Abstract

Probiotics are considered live formulas composed by microorganisms that, when administered in appropriate amounts, produce a beneficial effect to the host. The effect of probiotics is present both in the gastrointestinal tract and systemically. For this reason, a noteworthy aspect is the impact that these formulas have on commonly systemic investigated parameters. Of these, the main ions are dosed in order to clarify various aspects, being used as a marker in various pathologies. The aim of the present study was to make a comparison between the values of the main ions (calcium, phosphorus, potassium and sodium) obtained before and after a 30-day probiotic treatment. The study population was represented by two groups of dogs: group 1- healthy dogs (n = 5) and group 2- dogs with apparent dysbiosis (n = 6). The treatment was performed with a probiotic product consisting of Bacillus subtilis, Bacillus licheniformis and Pediococcus acidilactici, for 30 days. The analyzed samples were blood serum samples obtained by centrifugation and separation from blood samples collected on anticoagulant on day 0 and day 31 of the study, respectively. Analyzes were performed by dry biochemistry methods using the VetScan biochemistry analyzer. The results obtained by ionograms suggest that probiotic treatment does not have a direct influence on the values of the main ions, neither in the group of healthy dogs nor in the group of dogs with apparent dysbiosis. Variations in ion values were considered physiological, and could not be directly attributed to the treatment performed. In conclusion, the probiotic composed of B. subtilis, B. licheniformis and P. acidilactici does not directly influence the values of the main ions, and can be considered safe for administration in both healthy dogs and dogs with gastrointestinal manifestations.

Key words: ions, probiotics, dogs