INFLUENCE OF VITAMIN E IN THE PROPHYLAXIS AND TREATMENT OF BRONCHOPNEUMONIA IN CALVES

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Objective: Bronchopneumonia of natural occurrence in calf housed calves was studied, and the influence of administration of DL-α-tocopherol acetate on prophylaxis and treatment of this disease.

Material and methods: Sixty male calves, with maximum age of 10 days, were evaluated. They were randomly allocated in two experimental groups: GSV (group without vitamin) and GCV (group with vitamin). The supplementation of an unique dose of 4,500 UI of DL-α-tocopherol acetate via intramuscular was preceded by physical examination, hematological profile, determination of seric proteins, globulins, gammaglutamiltransferase and tracheobronchial wash cytology (D0) to verify the sanity and homogenization of the groups. The animals were taken to THE CALF housing and distributed 2-2 in individual pens of 2,40m², where they remained until 21º day (D0 to D21). All animals were evaluated by physical examination daily and, in presence of indicative clinical signs of bronchopneumonia (DX), they were removed from THE CALF housing, evaluated for hemogram and cytology of tracheobronchial wash, and treated with enrofloxacin (5 mg/Kg, IM). During the treatment, physical examination was carried through daily and the hemogram and cytology of the tracheobronchial wash were repeated one week after its ending (DY). In healthy animals, hemogram and cytology of tracheobronchial wash were repeated in the last day of the experiment (D21).

Results: There was no significant difference regarding the variable gammaglutamiltransferase (p=0,09), seric proteins (p=0,27), globulins (p=0,10) and the age of the animals (p=0,15) between the groups. It took 11 and 12 days (mean) for the animals of the groups GSV and GCV become sick, respectively. However, there was no significant difference between the groups (p=0,68). Thirty-four animals (56,66%) were diagnosed with bronchopneumonia: 17 of these calves (50%) were from group GCV and 17 (50%) from group GSV. Regarding the clinical signs, there was no significant difference between the groups at any moment of the study. Approximately 73,52% of the 34 animals that got sick died from the disease, being 64,7% from group GCV and 82,35% from group GSV. The cytology of the tracheobronchial wash did not present any significant difference between the groups at any moment of the study. (D0, DX, DY e D21).

Conclusion: In the studied animals, the supplementation with vitamin E did not have influence on bronchopneumonia prophylaxis or treatment of these animals.