

ASSESSMENT OF TREATMENT EFFICIENCY OF NEONATAL CALF DIARRHOEA AS PER QUANTITATIVE CHANGES OF BLOOD CALCIUM, UREA, ALBUMINS AND LEUKOCYTES

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Abstract. The aim of the research is to evaluate the clinical significance of the total amount of calcium, urea, total proteins and blood leukocytes in the blood serum of diarrhoeic calves and to determine the efficiency of rehydration, anti-inflammatory and detoxifying therapy.

The experiment was carried out on 60 calves from birth to 10 days of age. All calves with symptoms of neonatal diarrhoea in 1-4 days after birth were divided into three groups according to the selected treatment method. The first group (I) was treated by applying rehydration therapy with electrolyte solutions *per os** and injections of ketoprofen (100 mg/ml), injecting 3 mg of ketoprofen for 1 kg body weight i.m. once per day three days in a row. The second group (II) was treated by applying rehydration therapy *per os* with electrolyte solutions once per day three days in a row. The third group (III) was treated by applying rehydration therapy with electrolyte solutions *per os*, i.e. injections in a jugular vein using a preparation stabilizing metabolism of mineral substances and carbohydrates* injecting 250 ml i.v. once per day.

The impact of rehydration, anti-inflammatory and detoxifying therapy on calves' blood indicators reports statistically reliable variations in leukocyte, calcium, albumin and urea concentrations ($P < 0.05$). Calves' recovery can be judged based on variations of these indicators.

Ten days after the treatment the blood of calves which were treated by applying rehydration therapy *per os* with electrolyte solutions and anti-inflammatory therapy in combination with anti-inflammatory non-steroid preparations showed a statistically reliable decrease of the amount of leukocytes. At the same time on the fifth and tenth day after the treatment the blood serum of the calves of this group contained statistically reliably ($P < 0.05$) higher calcium concentration and statistically reliably ($P < 0.05$) lower urea concentration. Due to the application of this therapy the recovery of calves' digestion function was the fastest (based on the fecal consistency). This kind of diarrhoea treatment therapy is applied in practice.

Keywords: calves, diarrhoea, calcium, leukocyte, albumin