

## Research on the hydromineral metabolism in rabbits suffering from diarrhoea

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« Diarrhoea » in rabbits, induced by experimental infestation with various coccidiae does absolutely not resemble the « classical » diarrhoea encountered in young mammals such as calves and infants.

Hydrous and mineral losses through the faeces were lower than in healthy animals. As the hematocrite and proteinemia decreased and as the diuresis was almost normal, this phenomenon can be considered as a haemodilution. The concentration of all plasma electrolytes studied decreased and the blood pH remained normal. In the intestine, the absence of a « true » diarrhoea can be explained by a very good re-absorption of water in the distal colon. The sodium seemed to be « badly absorbed » in the small intestine. As regards the potassium, and as compared to the controls, changes occurred in the caecum. Let us mention that despite the low feed intake, the apparent digestibility of minerals was highly reduced. With respect to the water metabolism, no dehydration was observed in the extracellular region: only the skin was largely dehydrated.

## Rabbit coccidiae and their pathogenicity

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Rabbit coccidiae were isolated as pure strains in SPF rabbits. The pathogenicity of six of these coccidiae was estimated and compared with respect to growth and mortality in the experimentally infested animals. According to the results obtained, the coccidiae can be ranked into 3 categories :

- 1) Very pathogenic coccidiae: *Emeria intestinalis* and *E. pellerdyi*, mortality occurs with infestations of 5 000 oocysts, 50 000 oocysts cause 100 p. 100 mortality; diarrhoea is severe and the delay of growth very large.
- 2) A pathogenic coccidium: *E. magna*, leading to very few mortality cases even with severe infestations (500 000 oocysts), but important diarrhoea and growth delay.
- 3) Little or non pathogenic coccidiae: *E. perforans*, *E. exigua* and *E. neoleporis*, causing neither death nor diarrhoea and an almost neglectable delay in growth.