

possible but they seem to offer several interesting possibilities. Further studies under similar conditions with the removal of other endocrine glands are being done.

While these studies were in progress the interesting reports of Dodds and his associates^{4, 5} were published. They have noted the development of an anemia and a marked reticulocytosis in association with gastric lesions upon the injection of pituitary extract. They conclude that a hormonal connection may possibly exist between the posterior lobe of the pituitary gland, the stomach, and the blood.

8273 P

Effect of Vitamins B and G Deficient Ration on a Coccidian Infection.

ELERY R. BECKER AND N. F. MOREHOUSE.

From Iowa State College.

Fifteen half-grown rats were put on the following diet, in order to develop in them the early symptoms of vitamins B and G deficiency: extracted casein, 18 pts.; starch, 73 pts.; butter, 4 pts.; salt mixture, 4 pts.; cod liver oil, 1 pt. The 15 controls received the same mixture made up to 8.0% with Fleischmann's powdered yeast. After 9 days on these rations each rat was infected *per os* with 1500 sporulated oocysts of *Eimeria miyairii* daily for 5 successive days. The oocysts eliminated during the infections were collected during the patent period in pans beneath the wire cages, and counts were made by the counting and dilution method.

The rats on the deficient diet eliminated from 2 million to 91 million oocysts each; mean, 35.8 ± 4.5 million. The controls on the normal diet eliminated from 106 million to 275 million oocysts each; mean 167.27 ± 7.15 million. It appears that the deficient rats developed infections only from a fourth to a fifth as heavy as the control rats. Both series were refractory to subsequent reinfection when restored to the growing diet (Steenbock's).

No explanation is offered at present, but it appears that the yeast contains something that favors the development of a coccidian infection. Work is now in progress to separate the influence of vitamins B and G.

⁴ Dodds, E. C., Hills, G. M., Noble, R. L., and Williams, P. C., *Lancet*, 1935, 1099.

⁵ Dodds, E. C., and Noble, R. L., *Nature*, 1935, **135**, 788.