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The Relationship Between Dietary-Energy Levels and the Severity of Trypanosoma brucei Infection in Growing Pigs

B.O. FAGBEMI[1], E.B. OTESILE[2], M.O. MAKINDE[3] and O.A. AKINBOADE[1]
Departments of [1]Veterinary Microbiology and Parasitology, [2]Veterinary Medicine, and [3]Veterinary Physiology and Pharmacology, University of Ibadan, Ibadan (Nigeria)

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ABTRACT

Growing pigs were placed on high, medium and low planes of dietary energy and were infected with a virulent strain of Trypanosoma brucei. During an 8-week period post- infection (p.i.), the respective liveweight gains by infected pigs on high, medium and low energy levels were 52.1,21.2 and 38.5%, respectively, of the corresponding gains by non-infected control pigs. There was a fall in red-blood cell values poi. which worsened with decreasing energy levels. Leucocytosis was observed in all infected pig groups and was mainly due to lymphocytosis. By 6 weeks p.i., the lymphocyte count had returned to near normal values in pigs on high and medium energy levels, but was persistently high in those on a low energy level. Neutropaenia was observed in all infected pig groups and persisted until 8 weeks p.i. The results indicated that nutrition modulates the host response to infection with trypanosomes.

Keyword