



Rotavirus excretion and immune status of piglets during suckling and after weaning

A. Jestin, Serge Bernard

► To cite this version:

A. Jestin, Serge Bernard. Rotavirus excretion and immune status of piglets during suckling and after weaning. *Annales de zootechnie*, 1985, 34 (3), pp.370-370. hal-00888397

HAL Id: hal-00888397

<https://hal.science/hal-00888397>

Submitted on 11 May 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

V. — PATHOLOGY

Pathogenicity of *Pasteurella multocida* in the pig : a general survey

Marylène KOBISCH

*Ministère de l'Agriculture, Station de Pathologie Porcine, B.P. 9,
22440 Ploufragan*

Pasteurella multocida is one of the infectious agents responsible for respiratory diseases in the pig in which mainly capsular groups A and D have been isolated. According to most authors strains of type A play a major role in pneumopathies, while those of type D generally produce nasal lesions. Pathogenicity of *Pasteurella multocida* depends on its serotype and on the presence of a thermolabile exotoxin. Several tests are suggested to study the dermonecrotic properties of this toxin : intradermic injection in guinea pigs, lethality in mice, experimental infection in SPF piglets and cytopathogenic effect in cell cultures.

Rotavirus excretion and immune status of piglets during suckling and after weaning

A. JESTIN *, S. BERNARD **

** Ministère de l'Agriculture, Station de Pathologie Porcine, B.P. 9,
22440 Ploufragan*

*** I.N.R.A., Laboratoire de Pathologie Porcine,
Nouzilly, 37380 Monnaie*

Rotavirus excretions were recorded in a pig herd during lactation and after weaning. Faeces from 4 piglets belonging to 4 different litters were collected daily for 90 days. The relationships between the number of coproantibodies of class A, G and M, the serum antibodies and the free or antibody bound virus excretion were discussed. All piglets excreted the virus during suckling and after weaning. During lactation antibodies of class A provided the piglets with a passive protection. These antibodies were present at very high levels (25-300 ng/ml), but their number suddenly decreased around Day 10 during virus multiplication. The excretion of the virus in the free form occurred parallel to that of the virus in the complex form. During lactation a balance was observed between the infectious pressure of the environment and the protection provided by local antibodies. After weaning, the equilibrium was no more observed and the immune parameters did not totally explain the virus multiplication conditions. This multiplication was not followed by a large coproantibody synthesis. This might be explained by the existence of an immune system with a short-lasting memory. Active antibodies were observed in the blood after weaning, but their number was not related with the high *rotavirus* excretion. Accordingly, the interpretation of the serological results obtained in this study is questionable.