



Swine dysentery: development of a severe S.D. model combining oral infection and continuous in pen-contamination (O.I. + C.P.C.) for the assay of drugs preventing the disease

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J. P. Raynaud, G. Brunault, E. B. P. Patterson. Swine dysentery: development of a severe S.D. model combining oral infection and continuous in pen-contamination (O.I. + C.P.C.) for the assay of drugs preventing the disease. *Annales de zootechnie*, 1979, 28 (3), pp.372-372. hal-00887928

HAL Id: hal-00887928

<https://hal.science/hal-00887928>

Submitted on 11 May 2020

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**Isolation of "Treponema Hyodysenteriae" strains
and control of their pathogenicity on healthy piglets.
Comparison with results given by dysentery obtained
from spontaneous contamination in pens**

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Forty two young weaned piglets weighing 12 kg on an average were orally inoculated with 4 strains of *Treponema* isolated from clinical cases of dysentery and producing a complete or a beta haemolysis as described for *T. Hyodysenteriae* (pathogenic strains). Despite this, one of the four strains was found to be *non pathogenic*. This was also observed in animals during treatment when *relapses of dysentery* occurred. The main characteristics of dysentery produced by the pathogenic strains of *T. hyodysenteriae* are the following: high morbidity (76 p. 100 of the inoculated animals) and very high mortality (93 p. 100 of the animals; 7 p. 100 with spontaneous cure). For those dead from dysentery, the death occurred on day 20 after inoculation, after 8 days of dysentery and 2 days of diarrhoea with mucus and without blood. The disease transmitted by *T. hyodysenteriae* is equivalent to the one obtained by spontaneous contamination in pens both as regards the samples taken, the incubation time and the length of each typical phase of the dysentery.

**Swine dysentery: development of a severe S.D. model
combining oral infection and continuous in pen-contamination
(O.I. + C.P.C.) for the assay of drugs preventing the disease**

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A new experimental Swine dysentery (S.D.) model combining oral infection and continuous in pen-contamination (O.I. + C.P.C.) used to determine the efficiency of drugs gave results similar to those obtained in the fields. The efficiency of preventing a severe manifestation of the disease, the possible effect of stress on apparently well protected animals and the possible recurrence of the disease after drug withdrawal were investigated. Each experimental protocol required 82 to 106 pigs and 4 protocols were applied. The efficiency of the best three drugs were: carbadox 50 ppm + Sulfamethazine 100 ppm > carbadox 50 ppm > olaquinox 100 ppm. Others tested in the same conditions were less efficient: ASP 250 ppm(*), ronidazole 60 ppm or lincomycin + spectinomycin 44 ppm.

(*) ASP (chlortetracycline + sulfamethazine + penicilline).

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