

SEROLOGICAL SURVEY OF WILD BOAR (*Sus scrofa*) IN LIGURIA, ITALY

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Abstract: During the hunting season 1992/93 it has been possible to collect 450 Wild boar serum samples. A serological survey on Hog Cholera has been carried out, with the aim to reveal the presence of this disease in Liguria, since there have been recently revealed some cases in Wild boar in the nearby Tuscany. All samples examined were negative. Later on tests for African Swine Fever, Foot and Mouth disease, Aujeszky disease, Lyme disease and Parvovirus were carried out on the same serum samples.

Keywords: Suidae, Hog Cholera, African Swine Fever, Foot and Mouth disease, Aujeszky disease, Lyme disease, Parvovirus, Epidemiology, Europe.

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1. Introduction

During the hunting season 1992/1993 it has been possible to collect 450 Wild boar serum samples (Tab.1). A serological survey on Hog Cholera has been carried out. The aim was to search for the presence of this disease in Liguria, since there have been recently

Table 1: Distribution of examined sera.

Tot.	Imperia	Savona	Genova	La Spezia
450	100	3	24	323

revealed some cases in Wild boar in the nearby Tuscany (Cordioli *et al.*,1993; Forletta *et al.*,1993). Later, serological test for African Swine Fever, Foot and Mouth disease, Aujeszky disease, Lyme disease and Parvovirus were carried out on the same sera.

2. Material and Methods

Sera were tested for the detection of antibodies against Hog Cholera and Aujeszky disease with two competition E.L.I.S.A. kits according to the indication of Agricultural Research Department, Central Veterinary Institute, Lelystad (the Netherlands) and Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia, Brescia (Italy); an indirect E.L.I.S.A. test has been used for the detection of antibodies against African Swine Fever, according to the indications of Istituto

Zooprofilattico Sperimentale della Sardegna, Sassari (Italy). Lyme disease antibodies have been detected with an Indirect Fluorescent technique using slides with *Borrelia burgdorferi* antigen (BioMerieux) an anti-pig fluorescein labelled globulin. Antibodies anti-parvovirus have been detected with Hemoagglutination Inhibition test.

3. Results

The results are shown in tables 2, 3, 4, 5.

Table 2: Results of serological tests for Hog Cholera, African Swine Fever, Foot and Mouth disease (Type O-A-C).

Examined	Negative	Positive
450	450	0

Table 3: Results of serological test for Aujeszky disease and titre of positive sera.

Total	Negative						Positive
430	390						40
Titre detected	1/4	1/10	1/16	1/40	1/64	1/160	1/256
Number of sera	1	6	4	17	4	7	1

Table 4: Results of serological test for Lyme disease.

Examined	Negative	Positive
95	95	0

Table 5: Results of serological test for Parvovirus and titre of positive sera.

Total	Negative		Positive							
96	1		95							
Titre detected	1/16	1/32	1/64	1/128	1/256	1/512	1/1024	1/4096	1/8192	1/16384
Number of sera	2	8	14	23	8	5	4	3	11	17

4. Conclusion

Referring to African Swine Fever and Foot and Mouth disease, our results are those expected, considering that our region is free from these two diseases. The serological positivity for Aujeszky disease and Parvovirus can be compatible with literature data.

We have tested 95 sera for Lyme disease, but we haven't found any positivity.

In conclusion it is difficult to explain the absence of positivity for Hog Cholera since there are no natural barriers between our surveyed territory and the nearby Massa Carrara province, where an outbreak of this disease has been reported and Parma province where several serological positivities were recorded (Cordioli *et al.*,1993; Forletta *et al.*,1993).

For this reason a further survey is being carried out on a sample taken from the border territory.

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