EFFICACY OF A COMMERCIAL VACCINE CONTAINING *Histophilus somni* AND *Mannheimia haemolytica* LEUKOTOXOID (HIPRABOVIS® SOMNI/Lkt) UNDER FIELD CONDITIONS

Perozo, E.; Puig, A.; Relancio, B.; March, R.

HIPRA, Amer (Girona), Spain.

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OBJECTIVE

The aim of this study was to confirm the efficacy of a commercial vaccine containing *Histophilus somni* and *Mannheimia haemolytica* leukotoxoid (HIPRABOVIS® SOMNI/Lkt) in reducing clinical respiratory signs and the number of concomitant treatments under field conditions.

MATERIALS AND METHODS

The study was conducted on a farm with a population of 450 calves of different ages. Fifty-five animals between 4 and 6 weeks of age were included in the trial. These animals were randomly assigned to two groups taking into account their body weight on the day of vaccination. Animals from the negative control group received a placebo consisting of a PBS solution (n=22). Animals from the vaccinated group received a commercial vaccine containing *Histophilus somni* and *Mannheimia haemolytica* leukotoxoid (HIPRABOVIS® SOMNI/Lkt) (n=33). Both groups received their treatments with the same method of administration (subcutaneous), dosage (2 ml/animal) and frequency (two doses, 21 days between first and second dose). The clinical respiratory signs and concomitant treatments were recorded for all the animals included in the trial in order to assess the efficacy of the vaccine. The significance level for all of the statistical tests (chi-square) was set at α=0.05 (5%).

RESULTS

1. Concomitant treatments: The concomitant treatments were recorded for both groups throughout the study. The percentage of animals treated was 54.55% in the control group and 12.12% in the vaccinated group. In the control group, this percentage represents 12 animals that received between 3 and 1 treatments during the study. In the vaccinated group, two animals received 2 treatments, and 2 animals received one treatment. Statistical differences were observed between the groups (chi-square test, p <0.001).

Table 1. Concomitant treatments administered during the study.

	CONTROL	HIPRABOVIS® SOMNI/Lkt
Number of treatments	25	6
Percentage of treated animals	54.55%	12.12%
Number of animals treated	12	4

2. Clinical respiratory signs: Clinical respiratory signs (nasal discharge, ocular discharge, conjunctivitis, cough, respiratory rate and hyperemic nasal mucosa) were observed in a higher percentage of animals in the control group (45.45%) than in vaccinated animals (12.12%). Statistical differences were observed between the groups (chi-square test, p-value 0.005).

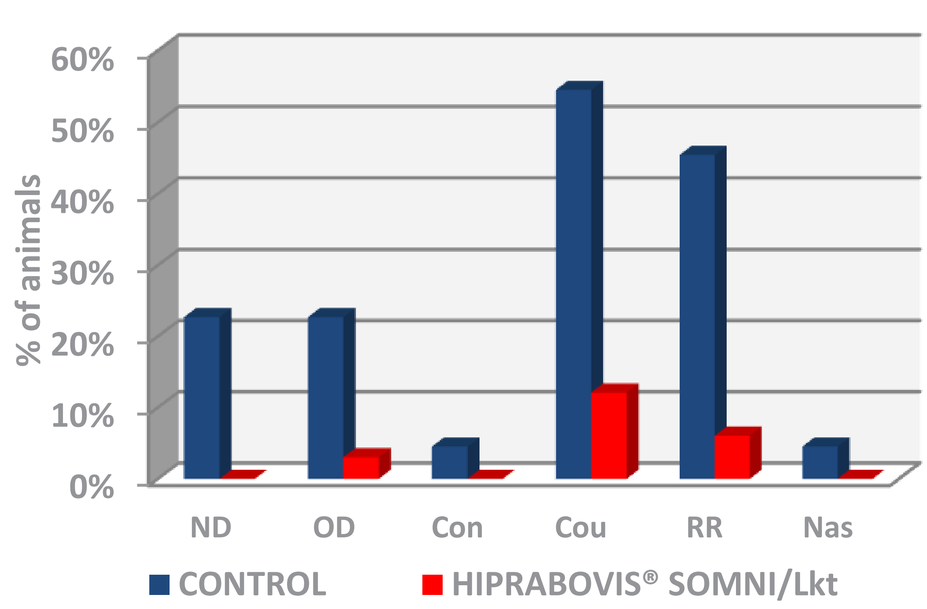

Figure 1. Percentage of animals showing clinical signs. ND=Nasal Discharge; OD=Ocular Discharge; Con=Conjunctivitis; Cou=Cough; RR=Respiratory Rate; Nas=Hyperemic nasal mucosa

CONCLUSIONS AND DISCUSSION

Vaccination with the commercial vaccine HIPRABOVIS® SOMNI/Lkt reduced the number of animals showing clinical respiratory signs and the number of concomitant treatments used during the first three months after arrival at the fattening farm.

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