

Effect of an immunostimulant administration in goat kid immune system

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Introduction

Attempts to stimulate the immune systems of livestock using non-pathogenic agents, such as sheep red blood cells and inflammatory agents, have had negative side effects. Microbial preparations that modulate the immune system have been used as chemotherapeutic agents since the early 1970s. Veterinarians usually prescribe these kinds of commercial products. However, if there are no corroborating scientific tests, the efficacy of the product is unknown; and if the products have no benefit, their administration only increases a farmer's expenses. The aim of the present work was to study the immunostimulant effects of a commercial mixture of a *P. acnes* extract, *Ochrobactrum intermedium* LPS, and Proclin® on the innate immune system of goat kids.

Material and Methods

20 newborn goat kids



Immunostimulant



Saline serum

Blood samples at days 10, 17, 24, 31, 38, 45, 52, 59 and 66 days

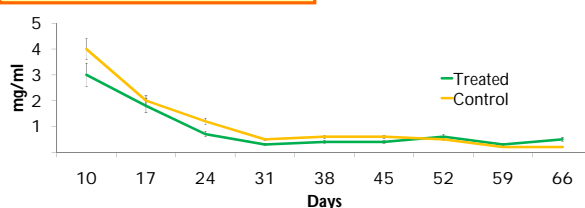
One aliquot was centrifuged (2136 × g, 5 min) and the separated plasma was frozen at -20°C for IgG determination (ELISA).

The second aliquot was analyzed for total and differential white blood cell counts.

Table 1. Total and differential white blood cell counts.

	White blood cell (10 ³ × cells/ml)			Neutrophils (10 ³ × cells/ml)			Lymphocytes (10 ³ × cells/ml)			Eosinophils (cells/ml)			Monocytes (cells/ml)		
	Treated	Control	SEM	Treated	Control	SEM	Treated	Control	SEM	Treated	Control	SEM	Treated	Control	SEM
d of life	LSM			LSM			LSM			LSM			LSM		
10	9.9	9.4	0.6	3.8	3.9	0.3	6.0	5.9	0.7	29	59	20	79	128	32
17	9.3	10.8	1.2	4.2	4.4	0.1	5.1	4.7	0.3	0	55	20	55	93	40
24	9.4	9.9	0.5	4.5	5.1	0.1	4.7	4.2	0.2	216	94	40	0	28	12
31	8.9	7.9	0.9	3.9	4.0	0.1	4.9	4.7	0.4	115	106	40	0	53	10
38	7.1	8.3	0.7	3.3	3.4	0.1	3.5	3.5	0.2	42	42	20	241	213	70
45	7.1	8.8	1.2	3.3	3.3	0.1	3.5	3.8	0.3	71	0	20	170	21	45
52	6.5	8.9	0.9	3.1	3.2	0.2	3.3	3.2	0.4	39	26	31	65	104	34
59	8.6	8.8	0.7	4.2	4.9	0.2	4.3	3.8	0.4	25	0	10	137	51	43
				4.2	3.7	0.1	3.9	4.3	0.3	24	32	12	65	82	22

Figure 1. Blood IgG evolution.



Conclusion

The administration of a reputed immunostimulant consisting of *P. acnes* extract, *O. intermedium* LPS, and Proclin® did not improve the innate immune system of goats between the ages of 10 and 66 days. Veterinarians and goat farmers should avoid spending money on a product that is not beneficial.