

Effect of Herbal Drugs on Survivability of Piglets

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Abstract

The present study was conducted on 75 pigs (gilts and sows) of Tamworth and Desi (T&D) breed distributed in six groups. Different herbal treatment viz. Clemenstol syrup, Femelin, Lecorin plus and Asoka cordial in various stages of reproduction namely pubertal stage, periparturient stage, post farrowing stage and around weaning stage were given, Group 1 (C) for gilts and Group 2 (C1) for sows were kept as control, lower was observed during earlier ages i.e. during first seven days. Almost 100% survivability was recorded after 29th day of age. Piglet survivability was higher during latter ages i.e. 29th to 56th day of age in comparison to earlier ages i.e. from birth to 28th day of age. However, there was no definite trend observed in different treatment groups and were statistically non significant.

Keywords: Herbal Drugs, Survivability, Piglet, Reproduction, Gilt, Sow.

Introduction

Efficient reproduction plays the key role in swine production. There are enough possibilities that improvement in the efficiency of swine reproduction can result from suitable application of herbal medicines. The use of herbal preparations, Payapro and Exapar (Dabur Ayurved) are effective in checking Metritis-Mastitis-Agalactia Syndrome in sows, resulting in higher piglet survivability and weight gain (Singh and Gusain, 1998). Application of herbal medicines may be associated with higher piglet survival rate and higher number of pigs weaned per litter. Litter size and weight at weaning being the two most important criteria for profitability, are adversely affected due to piglet mortality. Profitable pig farming is dependent on better piglet survival, faster growth rate and good breeding efficiency of the sows. Keeping these points in view the present study was undertaken.

Material and methods

The research work was carried out at Pig Breeding Farm, Ranchi Veterinary College, Kanke, Ranchi. The experiment was conducted on a total Table -1: Treatment given to different groups.

of 75 pigs (gilts and sows) of Tamworth and Desi (T&D) breed in various stages of reproduction namely pubertal stage, periparturient stage, post farrowing stage and around weaning stage. The pigs were maintained on identical ration schedule and managemental conditions. These pigs were allocated into 4 treatment and 2 control groups.

Results and discussion

The average survivability percentage of piglets of gilts at different ages in treatment and control groups have been depicted in Table - 2. It is evident from the table that survivality was slightly lower or almost equal in Clemenstol syrup treatment gilts than gilts of control group at all the ages except at 22-28 days of age. However, the table indicated non-significant difference between treatment and control groups. The survivability percentage was recorded $94.60 \pm 2.12\%$ and $96.67 \pm 3.33\%$ from birth to 7th day of age in treatment and control group, respectively while the value was found $100.00 \pm 0.00\%$ from 50 to 56th day of age in both treatment and control groups. The overall average value of pre-weaning (from birth to 56th day) survivability was found

Stage of Reproduction	Groups	No. of Animals	Treatment given	Dose (For 10 days)	Route
Induced gilts	T,A	15	Clemenstol Syrup	25 ml b.i.d.	Oral
Induced gilts (control)	C	5	No treatment	-	-
Periparturient sows	T1B	15	Femelin*	25 ml b.i.d	Oral
Post farrowing sows	T2 C	15	Lecorin plus*	25 ml b.i.d.	Oral
Weaning sows	T3 D	15	Asoka caracal*	25 ml b.i.d.	Oral
Control	C1	10	No treatment	-	-

* Herbal (APS) Pvt. Ltd. Patna.

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Table - 2: Average survivability (%) of piglets in treated and control groups of gilts.

Age (days)	Treatment (T) (n=15)	Control (C) (n=5)	t-value (NS)
0-7	98.67±1.33	94.60±2.12	0.51
8-14	98.52±1.01	96.60±1.84	0.01
15-21	100.00±0.00	98.52±1.01	0.47
22-28	100.00±0.00	97.83±1.52	0.00
29-35	100.00±0.00	86.46±2.43	0.82
36-42	100.00±0.00	96.67±3.33	0.00
43-49	97.14±2.85	96.67±3.33	0.00
50-56	100.00±0.00	100.00±0.00	0.00
At birth - 56	100.00±0.00	90.47±3.91	0.77

Figures in parentheses indicate number of observations.

NS = Non-significant.

86.46±2.43% in treatment group and 90.47±3.91% in control group. However, differences between the treated and control groups were non-significant at all the ages during pre-weaning periods. The result could not be compared due to lack of informations.

Average survivability percentage of piglets of sows in treatment groups at different ages has been presented under Table-03. It is clear from the table that average survivability percentage of piglets of treatment groups T1, T2 and T3 was almost similar at all ages during pre-weaning periods and these groups did not differ significantly with each other from birth to 56th day of age. Average survivability percentage of piglets of sows in all the groups ranged between 94.65±1.55% (group T3) to 98.79±1.21% (group T2) from birth to 7th day of age. Results obtained in this study were almost similar to the findings of Sharma (1989) who found overall average survival rate, 98.64±2.26% during birth to 7th day of age. The survivability percentage in this study was higher than that of Mukhopadhyay (1989) who reported overall average survivability rate 83.26±2.92%. In the present study the overall average values of pre-weaning (birth to 56th day) survivability ranged from 86.70±3.31% (group T3) to 89.45±3.31% (group C1).

Variations in survivability rate might be due to genetic group, birth weight (Sharma, 1989 and Mukhopadhyay, 1989) & parity (Singh *et al.*, 1986), letter size at birth. Singh and Gusain (1998) observed that the effect of medication (Exaper and Payapro) was amply reflected in the improved survival in the piglets of the treated sows, mortality

occurred only during the pre-weaning period and was significantly lower in the treated group as compared to the untreated group. They also stated that the use of Payapro effectively prevented agalactia/hypogalactia in the treated group. They concluded that the herbal combination of the galactagogue Payapro and the cleaning draught Exapar was effective in checking the incidence of MMA and minimizing piglet mortality. During the present study almost similar survivability percentage of piglets of sows in different treatment groups along with control group was recorded from birth to 56th day of age. So, it appears that different herbal drugs like Femelin, Lecorin plus an Asoka cordial has no significant effect on piglet survivability rate.

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Table - 3: Average survivability (%) of piglets in treatment and control groups of sows.

Groups	No. of Observations	Age (days)								
		0-7	8-14	15-21	22-28	29-35	36-42	43-49	50-56	At Birth-56
T1	15	96.71±1.51	98.79±1.21	94.65±1.55	96.21±1.94	97.78±2.22	98.52±1.01	99.05±0.95	98.57±1.43	96.88±1.71
T2	15	98.50±1.03	98.59±0.96	98.89±1.11	99.17±0.83	97.59±1.78	98.50±1.03	99.09±0.91	100.0±0.00	100.0±0.00
T3	15	96.81±1.76	98.00±0.00	98.33±1.67	98.42±1.07	100.0±0.00	100.0±0.00	100.0±0.00	98.89±1.11	99.05±0.95
C1	14	100.0±0.00	100.0±0.00	99.26±0.74	99.05±0.95	98.33±1.67	89.08±3.07	89.44±2.61	86.70±3.31	89.45±3.31