

# INDUCTION OF POST PARTUM OESTRUS WITH HERBAL UTERINE CLEANSER AND OESTRUS STIMULATORY DRUG COMBINATION IN DEONI COWS

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## ABSTRACT

Present investigation was carried out in post partum anoestrus Deoni cows maintained on an organized farm. Cows after 75 days of calving with good health status were confirmed clinically as anoestrus and were included in the present study. Twelve cows were treated with herbal uterine cleanser @ 100 ml drench per day for three days in treatment group with ten days supplementation of two tablets of haematinic minerals daily. The treatment group animals also received herbal heat inducer powder @ 3 gm per 100 kg body weight for three days. Animals from control group were maintained as per routine schedule without treatment. It was observed that 83.33 per cent cows responded within  $5.40 \pm 2.49$  days of treatment and 66.67 per cent animals conceived with 1.63 services per conception as against nil response in control group. Serum blood biochemicals revealed significant increase in haemoglobin, copper, cobalt and iron levels. However, protein levels showed inconsistent results.

**Key words:** Post partum estrus, Deoni, Herbal, Mineral

Post partum anoestrus is the major cause of infertility in cattle. Uterine ill health, lactational stress, deficient nutrition and other factors delay ovarian cyclicity in parturient animals. Modern dairy systems call for calf a year programme, which necessitates induction of cyclicity by 60 days of post parturition. Although, herbal therapies are preferred to ignite the reproductive cyclicity, it is necessary to consider the etiological factors leading to post partum refractoriness. Present studies were carried out to induce oestrus in post parturient Deoni cows for optimizing fertility with combined herbal therapies for uterine regeneration and ovarian stimulation.

Twenty one Deoni cows in post partum phase from Cattle Breeding Farm, Veterinary College, Udgir, were selected for the present trial. Cows were clinically confirmed as healthy with normal genitalia and non cyclic ovaries on per rectal examinations. Twelve cows

were treated after 75 days of parturition with herbal uterine cleanser (liquid Utrifit\*) @ 100 ml per day for 3 days and tablets (Cofecu plus\*) consisting of hydrated salts of Copper sulphate 200 mg, Cobalt sulphate 40 mg, Ferrous sulphate 100 mg and Manganese sulphate 400 mg @ 2 tablets daily for 10 days. Herbal heat inducer powder (Ovifertin\*) @ 3 gms per 100 kg body weight for 3 days was administered orally after the haematinic mineral treatment. Control group of cows were fed as per routine schedule. The treated animals were followed for recording of reproductive parameters like type of oestrus, treatment response duration, duration of oestrus, follicular developments, conceptions, establishment of cyclicity (Shanker *et al.*, 1996) and regularity of cyclicity.

The blood samples were collected a day before start of treatment in all selected animals. After treatment phase blood samples were collected on 5<sup>th</sup> day of completion of treatment. However in those animals, which were found in oestrus during the treatment period or even before the 5<sup>th</sup> day of completion of treatment,

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the blood was collected only on the day of oestrus. Haemoglobin estimations were carried out immediately after blood collections. Estimation of serum protein and iron was carried out in blood samples with semi automatic blood analyzer (Statfax 2000) by using Raichem Co. reagent Kit. Serum copper and cobalt estimations were carried out with automic absorption spectrophotometer (Shimadzumeake model no. AAS-6300). The recorded data and clinical observations were statistically analyzed by using analysis of variance to determine means and standard errors as per the methods described by Snedecor and Chochran (1968).

Post partum anoestrus Deoni cows were treated with uterine cleanser and restorative herbal preparation followed by haematinic mineral supplementation and heat inducer herbal treatment. The farm animals treated with the triple approach treatment responded with 83.33 per cent success of induced oestrus as against nil response in control group. The multiple treatment in Deoni cows was found to be effective for bringing about ovulatory oestrus in responded cases within  $5.40 \pm 2.49$  days of treatment. The responded animals were found to be pregnant in 67.67 per cent cases with 1.63 services

per conceptions. The cyclic non breeding tendency was recorded in two responded cases under the present trial. The treatment was basically aimed to correct uterine environment through removal of decidua and regeneration of endometrium for stimulating gonadotropic activity. The combination treatment induced 83.33 per cent oestrus in post partum animals and resulted in 66.67 per cent conceptions as against zero response in control group (Table).

Goswami, *et al.* (1995) reported 50.00 per cent and 66.00 per cent induction of oestrus in anoestrus Red Kandhari and Jersey x Red Kandhari cross bred cows respectively. On administration of herbal anthelmintic (Jantana powder), herbal uterine tonic (Metrali powder) for two days and subsequent herbal heat inducer capsules @ 2 capsules per day for two days. Further it was reported that both FSH and LH levels were significantly found to be increased on days 21<sup>st</sup> of treatment. Deshpande, *et al.* (2000) reported use of Hitali capsules (Mycon Pharma) after administration of Metrali powder herbal uterine cleanser with 80.00 per cent success of oestrus induction within 8.87 days of treatment and 64.24 per cent pregnancies. Tandle,

**Table : Response to combined herbal heat induction therapy in post partum Deoni cows**

Sr.No.	Parameter	Observation Groups	
		Treatment	Control
01	No. of animals under trial	12	09
02	No. of animals responded –induced oestrus	10 (83.33%)	Nil
03	Onset of oestrus after treatment (days)	$5.40 \pm 2.49$	Nil
04	Duration of oestrus (hrs)	$26.10 \pm 1.30$	Nil
05	No. of animals ovulated out of induced oestrus	10(83.33%)	Nil
06	Conceptions 1 <sup>st</sup> /Induced oestrus	04	Nil
	2 <sup>nd</sup> / 1st natural oestrus	03	Nil
	3 <sup>rd</sup> / 1 <sup>st</sup> natural oestrus	01	Nil
	Total	08(66.67%)	Nil
07	Services per conception	1.63	Nil
08	No. of cyclic non breeder animals	02	Nil
09	Establishment of cyclicity	10/12(83.33%)	Nil
10	Regularity of oestrus (days)	$22.60 \pm 0.50$	Nil



et al. (2002) treated post partum cows with uterine cleanser and restorative preparation followed by herbal heat inducer capsules reported 82.35 per cent conception rate. The aforesaid references consisting of combination therapies with uterine cleanser and heat inducer properties have reported response for induction of oestrus in anoestrus cases.

Serum biochemical levels of haemoglobin, copper, cobalt and iron revealed significant increase in treatment group as against control group and pretreatment group. However, protein levels were not altered significantly in treatment and control group. In conclusion, the non-hormonal herbal formulations carrying active phyto-constituents responsible for mimicking the gonadotropins and also synchronizing release of physiological hormonal events leads to induction of ovulatory oestrus. However, uterine health restorative and haematinic drugs preparations are prerequisites for effective induction of fertile oestrus resulting to conceptions in anoestrus cases.

REFERENCES

Deshpande, R.S., Dhoble, R.L. and Sawale, A.G. (2000). Efficacy of indigenous drugs in the treatment of post partum anoestrus in buffaloes. Indian J. Anim. Reprod. 21: 115-116

Goswami, J.D., Pargaonkar, D.R., Bakshi, S.A., Mantri, A. and Deopurkar, V.L. (1995). Studies on serum FSH and LH profile of anoestrus Red Kandhari and Cross bred cows treated with herbal heat inducer. Paper presented during XIIth ISSAR National Conference held at Akola during January 13<sup>th</sup>-15<sup>th</sup>, 1995. Abstract paper in Souvenir. Pp.320

Tandle, M.K., Honnappagol, S.S., Sundaravardanan, V.K., Sonwane, S.D., Murugappa, A., Khan, A. and Shettar, V.B. (2002). Efficacy of herbal preparations Exapar and Janova in improving reproductive performance in post partum cows. Paper presented during XVIIIth ISSAR National Conference held at Izatnagar during Nov. 14<sup>th</sup>-16<sup>th</sup>, 2002. Abstract paper in Souvenir Pp.108

Shanker, U., Singh, G.D., Upadhyay, M.P. and Pant, H.C. (1996). Treatment of true anoestrus in bovines with progesterone and oestrogen. Indian J. Anim. Reprod. 17:1-5

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