

EFFICACY OF HERBAL HEAT INDUCERS AND MINERAL SUPPLEMENTATIONS FOR INDUCING FERTILITY IN POST PARTUM ANOESTRUS DECCANI SHEEP

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ABSTRACT

The study was conducted to evaluate the efficacy of herbal heat inducer and mineral supplementation in 40 post partum anoestrus Deccani Sheep. The experimental ewes were selected from Sheep unit, Veterinary College and Private Sheep units located around Udgir (MS). The animals were divided into four groups. Each group consisting ten sheep. Group I were administered orally with Capsule Janova @ 2 Cap. daily for three days, repeat the dose after 10 days if no estrus is observed. Group II were treated with Exapar liquid (@ 20 ml daily / sheep for 5 day) + Tab. Mintrus (@ one Tab./daily for 20 days) + Cap. Janova (@ 2 cap. for 3 days). Group III were administered with AV/UTL/17 (@ 20 ml daily / sheep for 5 day) + Tab. Mintrus (@ one Tab./daily for 20 days) + Cap. Janova (@ 2 cap. for 3 days). Group IV was kept as untreated control. In group I, 80.00 per cent of the sheep showed oestrus within 127.25 ± 4.26 hrs. and conception rate was 75.00 % with 1.67 services per conception. In Group II 90.00 per cent showed oestrus within 86.00 ± 4.53 hrs and conception rate was found to be 66.67 % with 1.5 services per conception. In Group III 90.00 per cent showed oestrus within 38.25 ± 8.58 hrs and conception rate was observed 88.89 % with 1.25 services per conception. In control group IV 30.00 per cent showed oestrus within 165.87 ± 6.77 hrs and 33.33 % conceived with 1.5 services per conceptions. Induction of fertile post partum oestrus in Deccani sheep was found to be effective with AV/UTL/17 (herbal uterine cleanser) + Mintrus + Janova administration followed by post partum anoestrus could be treated successfully with Exapar + Mintrus + Janova combination therapy.

Key words: Herbal heat inducer, Mineral supplementations, Post partum anoestrus, Deccani Sheep

Deccani sheep breed is the most famous breed of sheep known for its chevon and wool quality. Deccani Sheep undergo cyclic pattern of reproduction with major number of breedable sheep exhibit the cyclicity during July to September (short day breeders). To have double lambs in a year, it is necessary that potential sheep should settle in July and January. Hence, it is proposed to undertake a research trial for promptly inducing cyclicity and conceptions with herbal heat inducer drug by monitoring normal uterine health and mineral supplementation in post partum Deccani Sheep.

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Forty Post partum anoestrus Deccani sheep were selected from Sheep and Goat unit, Veterinary College, Udgir and Private Goat Units around Udgir area. All ewes were selected only after 60 days of lambing. Experimental animals were examined for confirmation of anoestrus. Optimum health score conditions and managerial care were confirmed in each animal before including the case under trial. Animals were divided into four groups. The experiment has been conducted during August - September 2008.

Each group carries ten sheep. Group I were administered orally with Capsule Janova @ 2 Cap. daily for three days and the dose was repeated after 10 days if no estrus is observed. Group II were treated with

Exapar liquid (@ 20 ml daily / sheep for 5 day) + Tab. Mintrus (@ one Tab./daily for 20 days) + Cap. Janova (@ 2 cap. for 3 days). Group III were administered with AV/UTL/17 (@ 20 ml daily / sheep for 5 day) + Tab. Mintrus (@ one Tab./daily for 20 days) + Cap. Janova (@ 2 cap. for 3 days). Group IV was kept as untreated control.

All animals were observed for a maximum period of 150 days in order to record the observations on post treatment, estrus induction, conception rate and nature of discharge. The data was analyzed by using Completely Randomized Design (unequal) as per Sendecor and Cochran (1967).

On scanning the available literature on treatment of anoestrus in sheep published up to 2008, it was observed that there are no reports on treatment of anoestrus with herbal heat inducer and mineral supplementation.

Group-I: Cap. Janova treatment group

The ewes were treated with cap. Janova revealed 80.00 per cent induction of oestrus within 127.25 ± 4.26 hrs as against 30.00 per cent with onset of oestrus 165.87 ± 6.77 hrs in control group. Six ewes were recorded in oestrus up to 4 – 5 days of completion of first treatment whereas two ewes were exhibited oestrus up to 6 days after repeat treatment. Average duration of oestrus was recorded as 29.25 ± 4.13 hrs in treated sheep. The type of oestrus was of intermediate in treatment and control group. Six ewes (75.00 %) conceived with 1.67 services per conceptions and two ewes (25.00 %) remained cyclic non-breeder.

All conceived ewes were lambing smoothly after completion of gestation period in February - March 2009. Two ewes did not respond even after repeated treatment. The regularity of post partum oestrus cycle was observed after every 18 days in treatment group as against it was observed fluctuation in control group.

Khurana (1995) reported use of Janova capsules (Ayurvet Ltd., Solan) @ 3 capsules for 2 days in 52 cows and recorded induction of oestrus in 15 cows within 10 days of treatment with 14 conceptions. Panchal et

al. (1996) used Janova cap in 76 buffaloes with 3 capsules per day for 2 days orally and observed heat within 16.54 days in 46 buffaloes of which only 3 buffaloes conceived whereas the same treatment with dose of 4 capsules for three days resulted into induction of oestrus in 18 animals within 8.53 days of which none was found to be conceived. Saxena and Maurya (1997) reported the success rate of induction of oestrus with Janova as 88.80, 70.00 and 40.00 per cent in crossbreds, non-descript cows and buffaloes under field condition respectively.

Group-II: Exapar liquid + Mintrus tablets + Cap. Janova treatment group

Post partum anoestrus ewes were treated with uterine cleanser and restorative herbal preparation followed by mineral supplementation and herbal heat inducer treatment. 90.00 percent of ewes responded to the treatment by showing estrus within 86.00 ± 4.53 hrs. Two ewes were induced oestrus during treatment whereas seven ewes were exhibited oestrus within 3 – 5 days after repeat treatment. Average duration of oestrus was recorded as 31.50 ± 3.96 hrs in treated sheep. The type of oestrus was of intermediate in treatment and control group. Six ewes (66.67 %) conceived with 1.5 services per conceptions and two sheep (22.22 %) remained cyclic non-breeder. One ewe was not responded to the treatment. The regularity of post partum oestrus cycle was observed after every 17-18 days in treatment group.

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 day 21 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.

Group-III: AV/UTL/17+Mintrus+Cap. Janova group

With the triple approach of treatment 90.00 per cent ewes were responded with induced oestrus within 38.25 ± 8.58 hrs after treatment. Five ewes were exhibited induced oestrus 2-3 days after treatment whereas four ewes were exhibited oestrus 2 days after repeat treatment. Average duration of oestrus was recorded as 34.25 ± 4.46 hrs in treated sheep. The type of oestrus was of intermediate in treatment and control group. Eight ewes (88.89 %) conceived with 1.25 services per conceptions and one sheep (11.11 %) remained cyclic non-breeder. One ewes was not responded to the treatment. The regularity of post partum oestrus cycle was observed after every 17-18 days in treatment group.

Induction of fertile post partum oestrus in Deccani sheep was found to be effective with AV/UTL/17 + Mintrus + Janova administration followed by the treatment with Exapar + Mintrus + Janova therapy. It can be concluded that mineral supplementations increasing basal metabolic rate with herbal heat inducer therapy is effective in induction of post partum oestrus and the induced ovulatory oestrus can suitably improve conception rate in ewes.

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