COMPARATIVE RESPONSE OF VITAMIN-MINERAL VS HERBAL THERAPY IN ALLEVIATING POST-PARTUM TRUE ANESTRUM IN DAIRY COWS

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ABSTRACT

Twenty four post-partum true anestrous cows were divided randomly into three equal groups viz. T1, T2 and C consisting 8 crossbred Jersey cows in each group. The cows in T1 group were treated with Agrimin powder (Glaxo) @ 30 gram orally daily for 21 days and vitamin-A injection (Glaxo) 4 ml i/m on alternate day for 3 days. The cows in T2 group were given Prajana HS capsule (Indian Herbs) @ 3 capsules orally for two consecutive days and repeated the same dose on 11th and 12th day after first treatment. The cows in C group were kept as control and no treatment was given to them. Induction of estrus was 87.5%, 75.0% and 37.5% in T1, T2 and C groups respectively. The occurrence of estrus in T1 group differed significantly (p<0.05) from C group. Conception rate was 71.4%, 50.0% and 33.3% in T1, T2 and C groups respectively. There was no significant difference of conception rates among the different groups.

Key words: Anestrous, Jesrey, Crossbred, Herbal, Mineral mix, Vitamin.

Prolonged post partum true anoestrum badly affects the production by increasing the calving interval. Anestrous is the most common single cause of infertility in cattle. Post partum true anestrum in cows occurs mainly due to nutritional deficiency and poor management of the cows, but hormonal imbalance may also aggravate this condition. Various workers have recommended different treatments to overcome the anestrous condition of dairy cows with different levels of efficacy. The present study was aimed to compare the efficacy of treatment regime between vitamin plus mineral and herbal therapy alone to overcome the post-partum true anestrous problem in an organized farm under temperate climatic condition of Kashmir Valley.

The dairy cows maintained in the Cattle Research Station (SKUAST-K), Manasbal were observed for post partum estrus. The cows which have not exhibited estrus after 60 days of calving were examined per rectum to see the reproductive status of the cows. Cows with smooth and non functional ovary and have not come to estrus even after 90 days post partum were included for this study. Total 24 post-partum true anestrous cows were randomly divided into three equal groups consisting 8 crossbred Jersey cows in each group viz; T1, T2 and C. The cows in T1 group were given Agrimin powder orally @ 30 gm per day for 21 days along with Vitamin A1 injection @ 4 ml i/m on alternate days for three days. Cows in T2 group were provided Prajana HS** capsule @ 3 capsules orally for 2 consecutive days and the same treatment was repeated after 10 days on 11th and 12th day. The cows in group C were kept as control without any treatment. All the cows were observed for occurrence of estrus for 3 months from the beginning of the study. The estrus detection was performed by parading a healthy teaser bull twice daily morning and evening. The cows exhibiting estrus were recorded and insemination was done with good quality Jersey semen.

Pregnancy was confirmed after 3 months of insemination by per-rectal examination. The data were expressed as percentage and statistical analysis was done as per Snedecor and Cochran (1968).

The percentage of cows in estrus was 87.5%, 75.0% and 37.5% in T1, T2 and C groups respectively. Occurrence of estrus in T1 group was
significantly ($P < 0.05$) higher than the group C. Response of the cows to vitamin plus mineral treatment was more than that of herbal treatment and the response of herbal treatment was more than the control group. But the difference between T$_1$ and T$_2$ and T$_3$ and C groups were non-significant. Vitamin-mineral treatment could exhibit estrus in 80% anestrous cows (Wani et al., 1999). Only mineral supplementation could exhibit estrus in 81.25% of post partum cows (Madhavan and Iyer, 1993). On the other hand Singh et al. (1984) and Wheeler (1993) observed 60% and 75% estrus respectively in Prajana treated cows. Hussain et al. (2006) treated post partum anestrous cows with prajana and cofecu plus tablet and observed that 84.62% cows exhibited estrus after treatment.

The conception rate was 71.4%, 50.0% and 33.3% in T$_1$, T$_2$, and C groups respectively. Though the conception rate in T$_1$ group was better than other used effectively to treat post partum true anestrous in groups, but it did not differ significantly. Madhavan and Iyer (1993) found 51% conception rate in cows with mineral supplementation (CoCu-H) and Hussain et al. (2006) reported 72.73% conception rate in cows treated with Prajana in combination with cofecu plus tablet. On the other hand Singh et al. (1984) observed 66.67% conception rate in cows treated with Prajana. Bhattacharya et al. (2001) observed 57.89% conception rate in Sajani treated post-partum cows.

The with conception rate was better in the cows provided with vitamin plus mineral combined therapy than that of only herbal therapy in the present study. Higher estrus and conception rate obtained in the present study in T$_1$ group might be due to the supplementation of cow with mineral plus vitamin A, as the vitamin A is an essential factor for the proper functioning of the reproductive organs. Therefore, vitamin plus mineral treatment can be used effectively to treat post partum true anestrous in cows in the temperate climatic condition of Kashmir.

**REFERENCES**