EFFECT OF ADMINISTRATION OF GNRH ANALOGUE ON CONCEPTION IN REPEAT BREEDER COWS SHOWING METESTRUAL BLEEDING

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Introduction: Although, metestrual bleeding has been described as a normal physiological phenomenon occurring in small proportion of cows, the incidence of this condition has increased considerably in recent years. Many of the cows showing bleeding post estrus fail to conceive and become repeat breeders.

Objectives: The study was conducted with the objective to assess the post treatment fertility in the repeat breeder cows exhibiting metestrual bleeding following the administration of GnRH analogue.

Materials and methods: The work was conducted at the clinical complex of college of Veterinary Science Palampur, India. Overall 230 crossbred dairy cows were taken for this study. Out of these, 167 repeat breeder cows without any apparent clinical abnormalities, except the history of metestrual bleeding, were divided into three (two treatment and one control) groups. Depending upon different treatment groups, 0.021 mg (5.0 ml) Buserelin acetate, a GnRH analogue (Receptal, Intervet Schering Plough India Ltd.) was injected intra-muscularly on Day 0 (n=85) along with AI or on Day 3 (n=41) post AI in these cows. Another 41 repeat breeder dairy cows showing metestrual bleeding were selected as control and inseminated without any treatment. A further 63 normal cows without showing any signs of metestrual bleeding were inseminated without any treatment. Pregnancy diagnosis was carried out 60 days post AI by rectal palpation method.

Results and discussion: Out of 85 cows in which GnRH was administered simultaneous to AI (day 0), 48 (56.47%) conceived. Similarly, of 41 cows, 23 (56.10%) conceived following administration of GnRH on third day post AI. Out of 41 repeat breeder cows showing metestrual bleeding and inseminated without any treatment, 14 (34.15%) were found pregnant and amongst normal cows without any metestrual bleeding, 33 (52.38%) conceived out of 63 inseminated.

Conclusions: Conception achieved following GnRH analogue administration in the repeat breeder cows showing metestrual bleeding simultaneously to AI (56.47%) or 3rd day post AI (56.10%) was significantly better (P< 0.05) than that of untreated control animals (34.15%) and was similar to normal cows not exhibiting post estrus bleeding (52.38%).

Keywords: GnRH analogue, repeat breeder, metestrual bleeding, conception