

# CLINICAL MANAGEMENT OF PROLONGED OESTRUS IN CATTLE

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## ABSTRACT

Five crossbred cows, with a history of prolonged oestrus and resultant infertility were selected for the study. Animals were regularly cycling and without any anatomical abnormalities in the reproductive organs. In all five animals, insemination was carried out 24 hours after the beginning of oestrous signs and 2.5 ml of GnRH (Receptal) was administered intramuscularly at the time of insemination. Repeat insemination was carried out in two animals which had exhibited heat signs even after 24 hours of first insemination. Among five cows, one animal exhibited oestrous signs after 21 days and remaining four cows got conceived and pregnancy was confirmed by per rectal examination after 75 days of insemination.

**Keywords:** Prolonged oestrus, infertility, repeat insemination, GnRH

## INTRODUCTION

The stage at which female becomes sexually mature and able to reproduce is called puberty. Oestrus is the period of acceptance of the male and the average duration of oestrus is 15 hours; however, there is a wide range of two to 30 hours (Arthur *et.al.*, 1989). Normally ovulation in cattle

occurs about 12 hours after the end of oestrus. Prolonged oestrus is a major constraint behind reproductive inefficiency of dairy cattle which leads to huge economic losses. Almost half of the repeat breeder crossbred cattle exhibits prolonged duration of oestrus. The failure of conception in prolonged oestrus exhibiting cattle could be due to failure of fertilization due to asynchrony between the time of insemination and ovulation. In the present investigation animals presented with a case history of prolonged oestrus and infertility were treated with GnRH for ensuring timely ovulation.

## CASE HISTORY AND OBSERVATION

Five crossbred cows with a history of prolonged oestrus and resultant infertility even after three consecutive inseminations were selected for the study. All five animals were regularly cycling with clear discharge during oestrus period. On per rectal examination no abnormalities could be detected in the reproductive organs. Based on the history and clinical examination, the cases were confirmed as prolonged oestrus and treatment has been initiated to synchronize time of insemination and ovulation to ensure fertilization.

## TREATMENT AND DISCUSSION

In all five animals, insemination was carried out 24 hours after the beginning of oestrous signs. All the selected animals were treated with 2.5 ml of GnRH (Receptal) intramuscularly at the time of insemination. Repeat insemination was carried out in two animals which exhibited heat signs even after 24 hours of first insemination. Out of five animals treated, one cow exhibited oestrus signs after 21 days and owner disposed that animal. Remaining four cows did not exhibit oestrus signs and pregnancy diagnosis was performed after 75 days and all of them were pregnant. Results were in agreement with the finding of Deen (1995), who reported that administration of GnRH at an appropriate maturity stage of ovarian follicles in infertile cows and buffaloes with ovulatory disturbances improved their fertility. The better results obtained in present study agrees with the findings of Kumar *et al.* (1994), who reported that ovulatory disturbances on account of hormonal imbalance, especially of LH are major cause for failure of fertilization and subsequent poor conception.

## SUMMARY

Prolonged oestrus condition in cattle result in delayed ovulation, which leads to failure of fertilization and infertility. Timely ovulation in prolonged oestrous cows could be ensured by giving GnRH injection intramuscularly at the time of insemination. In those animals oestrus persists for more than 24 hours of first insemination, repeat insemination is needed for better conception.

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