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## Treatment of Anovular oestrus in a crossbred cow

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**Abstract**

Anovulation is a common endocrine dysfunction that results in development of an ovular heat in which animal exhibits normal oestrus behaviour at normal oestrus cycle length interval and the ovarian follicle reaches preovulatory size but it fails to ovulate. A Holstein Friesian crossbred cow about five and half years old was attended at the doorstep of a private dairy farmer near College of Veterinary Science, Khanapara, AAU, Ghy-22 with a history that the cow has been repeated since last 4 months after consecutives artificial insemination. On re-examination it was found that the both ovaries were smooth. Following thorough examination on next heat, the cow was administered 2.5 ml synthetic analogue of GnRH (Gynarich, Intas Pharmaceuticals Ltd.) intramuscularly at the time of artificial insemination. An area specific mineral mixture (AAUVETMIN, developed by Assam Agricultural University) @ 40 g per day orally was also provided for 20 days as supportive. In present investigation, 50% conception rate in crossbred cow by using 2.5 ml of injection of synthetic analogue of GnRH by i/m administration at the time of insemination.

**Keywords:** Treatment, an ovular, oestrus, crossbred, Cow

**Introduction**

Infertility problems in dairy cow are most embittering to farmers and caused by various factors. Anovular heat is one of the major causes of repeat breeding in dairy cows. Anovulation is a common endocrine dysfunction that results in development of an ovular heat in which animal exhibits normal oestrus behaviour at normal oestrus cycle length interval and the ovarian follicle reaches preovulatory size but it fails to ovulate. Das (2002) [2] in his study reported that out of 75 repeat breeding crossbred cattle 22 (29.33%) repeat breeding was due to anovulation.

Ovulatory failure may be due to lower level of estradiol 17 $\beta$  secretion from pre ovulatory follicle or insensitivity of the hypothalamic-pituitary axis to elevated levels of estradiol for release of L.H. The deficiency of L.H. secretion at the appropriate time after oestrus in cows results in anovulation and conception failure. Since, this anovulatory follicle become partly luteinized and then regress during the oestrus cycle as does a normal corpus luteum (Hafez, 2013) [1].

**History and Observation**

A Holstein Friesian crossbred cow about five and half years old was attended at the doorstep of a private dairy farmer near College of Veterinary Science, Khanapara, AAU, Ghy-22 with a history that the cow has been repeated since last 4 months after consecutives artificial insemination. Upon clinical examination, the animal was exhibiting behavioural and physical signs of heat but on rectal examination it was found that both the ovaries were smooth with having palpable follicle on right ovary but moderate uterine tonacity with free flowing cervico-vaginal discharge as compared to normal oestrus animal. The owner was advised to report after 10<sup>th</sup> day from onset of oestrous.

On re-examination it was found that the both ovaries were smooth. The owner was advised to inform on next heat.

**Treatment and Discussion**

Following thorough examination on next heat, the cow was administered 2.5 ml synthetic analogue of GnRH (Gynarich, Intas Pharmaceuticals Ltd.) intramuscularly at the time of artificial insemination. An area specific mineral mixture (AAUVETMIN, developed by Assam Agricultural University) @ 40 g per day orally was also provided for 20 days as supportive.

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Animal was examined after 60 days for pregnancy diagnosis and on examination it was found pregnant. Present finding is in agreement with Sharma *et al.* (2006) [3]. He obtained 50% conception rate in crossbred cow by using 2.5 ml of injection of synthetic analogue of GnRH by i/m administration at the time of insemination.

### Summary and Conclusion

The repeat breeder cow was exhibiting behavioural and physical signs of heat but on rectal examination it was found that both the ovaries were smooth with having palpable follicle on right ovary but moderate uterine tonicity with free flowing cervico-vaginal discharge as compared to normal oestrus animal. The owner was advised to report after 10<sup>th</sup> day from onset of oestrous. The owner was advised to inform on next heat. Following thorough examination on next heat, the cow was administered hormone intramuscularly at the time of artificial insemination. An area specific mineral mixture for 20 days as supportive. Animal was examined after 60 days for pregnancy diagnosis and on examination it was found pregnant. In current study, the animal 50% conception rate in crossbred cow by using 2.5 ml of injection of synthetic analogue of GnRH by i/m administration at the time of insemination.

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