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Case Report

Cystic ovarian disease in a crossbred cow

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ABSTRACT

Management of cystic ovarian disease in a crossbred cow is reported in present paper.

Key words : Cystic ovarian disease, crossbred cow

Cystic ovarian disease or degeneration is an important form of functional infertility in dairy cattle particularly high producing animals, commonly occuring due to failure of endocrine mechanism of ovulation. Evidences have shown that the disease is increasing in incidence in recent years with the increased use of artificial insemination and the increased level of productivity. A crossbred cow of six years age calved once earlier was presented in the polyclinic of institute for pregnancy diagnosis with the history of breeding six months back. Per rectal examination revealed that the animal was non pregnant and right ovary was enlarged and soft having smooth conex surface and appeared to contain cyst, which was solitary. The other ovary and rest of genitalia was apparently normal. Follicular and luteal cyst may be hard to differentiate clinically but the former may be multiple on both ovaries while the latter are often single (Roberts, 1971). Clinically the animal was anestrus, which is the main clinical sign of luteal or luteinized cyst (Jainudeen and Hafez, 1987). It was considered appropriate to scan the ovary ultrasonographically. Animal was subjected to transrectal ulrasonographic examination of ovaries using real time B-mode scanner equipped with 6.0 MHz linear array transducer (Pie Medicals, Netherlands). Ultrasonography revealed that the diameter of cyst was 2.24 cm and the luteinisation was peripheral (Fig. 1).

Ovarian cyst may regress spontaneously (Parkinson, 2001) but if it persists or longer duration, it requires suitable treatment. Luteal cyst have been treated by several therapeutic ways i.e. progesterone, hCG, GnRH and PGF_2alpha or its analogue. An attempt was made to treat the condition using synthetic analogue of GnRH, Buserelin acetate, 20 µg (Receptal[R] 5 ml, marketed by Intervet laboratories limited, Pune) given intramuscularly and owner was advised to wait and watch for one cycle length for onset of estrus. After elapse of this duration the animal had to be administered the second shot of Receptal, which resulted in the onset of estrus on 10th day. The animal was examined per-rectally after four days and complete regression of cyst with occurrance of ovulation was noticed.

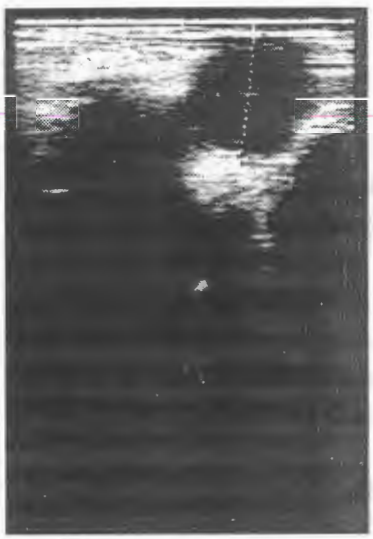

Fig.1 Ultrasonograph of cow ovary showing luteal cyst

Agarwal and Shanker (1998) have reported 75% of response with GnRH alone in crossbred cows with cystic ovarian disease. GnRH, being of lower molecular weight is less likely to stimulate antibody formation (Jainudeen and Hafez, 1987). GnRH stimulates further luteinisation and the heavily luteinized cyst perhaps becomes susceptible to the

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action of endogenous luteolysin or alternatively since secondary ovulations with corpus luteum formation frequently occur, the subsequent release of luteolysin which causes regression of the corpus luteum might have a similar effect on the cyst (Parkinson, 2001).

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ANNEXURE - 1

APPLICATION FOR LIFE MEMBERSHIP IN THE INDIAN SOCIETY FOR STUDY OF ANIMAL REPRODUCTION (REG.NO. BOM 253/78)

Name and Address
(in block letters)

Professional qualification

Address to which all correspondence should be made (with PIN CODE)

Telephone No.

E-mail address

Whether Membership is direct or through State Chapter

*Details of the draft remitting life membership fee

Place :
Date :

Signature of the Applicant

*The life membership fee is Rs.1200/- and admission fee is Rs.10/-. Those who seek direct enrollment as life member should apply to the Treasurer, ISSAR in the prescribed proforma (Annexure 1) and A/c payee DD for Rs.1210/- payable at State Bank of India, CARI Branch (Code 7027), Bareilly, to Dr. Satish Kumar, Treasurer, Principal Scientist, Animal Reproduction Division, IVRI, Izatnagar, Bareilly (UP) - 243 122.