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Incidence of endometritis in crossbred dairy cows: A clinical report

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Abstract

This clinical report investigates the incidence of endometritis in crossbred dairy cows. The study was conducted between May and August 2004, involving 621 cows presented for artificial insemination at the Teaching Veterinary Clinical Service Complex (TVCS), Yelahanka, Bangalore, and an organized dairy farm near the Veterinary College, Bangalore. Diagnosis was based on the nature of discharge, gynecological examinations, and the Whiteside test. Results indicated an overall endometritis incidence of 12.56%, with a significant difference in incidence between cows at TVCS (9.36%) and the organized farm (18.14%). The study confirms that the Whiteside test is a useful diagnostic tool for endometritis, particularly in repeat breeding cows with normal discharge and no abnormalities detectable by rectal palpation.

Keywords: Endometritis, crossbred dairy cows, Whiteside test, reproductive disorders, artificial insemination, clinical diagnosis, postpartum care

Introduction

Endometritis is one of the most important reproductive disorders causing failure of conception in dairy cattle. Its incidence depends on postpartum care of animals, diagnostic method and time of sampling (Gilbert, 2003) [3] and breed (Chourewar *et al.*, 2002) [2]. Both lower (chetty and Rao, 1987, Hussain, 1987) [1, 5] and higher (Rao and Kotayya, 1976; Hussain and Muniraj, 1984; Khasatiya *et al.*, 1998; Tafti and Darahshiri, 2000) [11, 4, 7, 14] incidence of endometritis has been reported in crossbred Cows.

Materials and Methods

The present study was conducted during May-Aug, 2004 utilizing 621 crossbred cows presented for artificial insemination to the Teaching Veterinary Clinical Service Complex (TVCS), Yelahanka, Bangalore and an organised dairy farm near Veterinary College, Bangalore. The animals examined at TVCS were Holstein Friesian crosses and Jersey crosses, whereas those examined at the organised dairy farm were Holstein Friesian X Sahiwal (Frieswal) crosses. All the cows were screened for endometritis by the nature of discharge, detailed gynaecological examination and Whiteside test. The Whiteside test was conducted by mixing about 1ml of aseptically collected uterine flushing and equal quantity of 0.5 per cent sodium hydroxide solution in a test tube and kept in boiling water both for one minute. The development of yellow colour was indicative of endometritis and the colour intensity indicated mild, moderate and severe endometritis. The negative samples did not show colour development and remain unchanged.

Results and Discussion

The overall incidence of endometritis was 12.56 per cent (Table 1), which closely confirms with the reported incidence of endometritis in crossbred cows by Naidu and Rao (1981) [9], Hussain (1987) [5] and Chetty and Rao (1987) [1]. The incidence recorded in the present study was lower than those reported by Rao and keshavamurthy (1972) [10], Rao and Kotayya (1976) [11], Khasatiya *et al.* (1998) [7], Tafti and Darahshiri (2000) [14] and Sharma *et al.* (2003).

The study also revealed an apparent difference in the incidence of endometritis between the cows screened at TVCS (9.36%) and in the organized farm (18.14%).

This difference could be ascribed to breed, level of milk yield (Jayakumari *et al.*, 2003) ^[6] and individual care of the

animals (Markusfeld, 1987; Jayakumari *et al.*, 2003) ^[8, 6]

Table 1: Incidence of endometritis in crossbred dairy cows.

Place	No. of animals examined	No. of endometritis cases	Incidence (%)
TVCSC, Yalahanka	395	37	9.36
Organized Dairy farm	226	41	18.14
Total	621	78	12.56

Conclusion

Out of 621 crossbred cows screened, 78 (12.56%) were found to be affected with endometritis as revealed by type of discharge, gynaecological examination and Whiteside test. Whiteside test can be utilized as a simple method for diagnosis of endometritis especially in repeat breeding cows with apparently normal discharge and with no apparent evidence by rectal palpation.

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