

COMPARISON OF TWO METHODS FOR TREATMENT OF RETAINED FETAL MEMBRANES IN CROSSBRED COWS IN RURAL CONDITIONS

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ABSTRACT

A total of 17 crossbred cows suffering with retained fetal membranes (RFM) were randomly divided into two unequal groups. The cows in Group I and II were assigned to manual removal and non-removal of RFM, respectively. The average time interval for complete uterine involution was 35.71 ± 1.06 and 33.2 ± 0.81 days in Group I and II, respectively.

Key Words: Bovine, RFM, Manual removal and non-removal of RFM

The retained fetal membranes (RFM) have many detrimental affects on production and fertility in *post partum* cows. During the past few decades though the Veterinary Science has advanced many folds the problem of RFM remained unsolved. Either manual removal or non-removal in combination with medicinal therapy has been in practice to tackle RFM. Manual removal coupled with local and systemic therapy has been the common practice in Indian comditions. As a result, the literature on the treatment of RFM affected cases had been centered mostly on manual removal. However, manual removal had many disadvantages like intrauterine trauma and injury, toxemia and septicemia and impaired uterine defense mechanisms (Benesch and Wright, 19952; McClary, 1986). Considereing the disadvantages of manual removal, Drillich *et al.* (2003) successfully treated RFM cases by non-removal approach. The objective of the study was to examine the comparative merits of non-removal over manual removal under field conditions.

A total of 17 parous crossbred cows under rural managemental practices were declared RFM affected when they failed to shed the fetal membranes within 24 hours of parturition (Drillich *et al.*, 2003). The cows were randomly divided into two unequal groups. The cows in Group I (No.7) and II (No.10) were assigned to

manual removal and non-removal, respectively. In group I, drugs *viz.*, Oxytetracycline hydrochloride (OTC) @5mg/kg body weight *i/v* for 5-7 days, Diclofenaec sodium 1mg/kg body weight *i/m* 12 hourly for 2-3 days, intravenous fluids (Mifex 450ml in divided doses and Dextrose for a couple of days) and intrauterine boluses (Furea 4 daily for 5-7days) were administered. While, in Group II OTC and Diclofenaec sodium were given. In additioin to the above drugs, in both groups Povidone-Iodine (1:2 or 1:3 dilution) 20ml intrauterine was infused weekly starting from third week post partum to complete uterine involution. In Group II, no attempt was made to tease the membranes. Ofcourse, the exterior portion of the fetal membranes was cut at the level of vulva without a pulling force. The cows were watched regularly for signs of ill health. The uterine involution was assessed by palpation of the tract *per rectum* (Rao and Rao, 1980) weekly starting from third week *post partum*.

In Group I, initially the rectal temperature increased by 1-2°F. Ofcourse, by third or fourth day the febrile reaction subsided. The cows developed moderate anorexia, brownish-bloody fetid discharges and straining at defecation and urination for 7-10 days. The uterine discharge was significantly large in Group I than II. In Group II, RFM were thrown out spontaneously as a bulky mass within weekdays. A couple of days prior to expulsion of RFM, cows appeared slightly dull and discomfort with occasional attempts of straining to expel

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RFM. But soon after expulsion they behaved normal. The quantity of purulent uterine discharge was comparatively less in Group II and yielded negligible smell. Though the production parameters were not evaluated systematically, in Group I owners complained that the milk yield was significantly affected until 3rd week *post partum*. Such a phenomenon was unfound in Group II. The time interval for complete uterine involution was 35.71 ± 1.06 and 33.2 ± 0.81 days in Group I and II, respectively and not differed. The reproductive performance was unaffected in both groups. Based on clinical manifestations observed in both groups, it was felt that the non-removal method appeared to have the slightest advantage over the conventional. However, it needs to be examined on a large population.

Most of the observations recorded in the present study were in accordance with the literature (Benesch and Wright, 1952; Drillich *et al.*, 2003). They reported

spontaneous expulsion of RFM within 2-11 days. The clinical symptoms observed in Group I might be due to trauma and injury, infection and inflammation inflicted by manipulations *per vaginum*.

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