Effect of Prophylactic Oxytocin Therapy on Duration of Retained Fetal Membrane (RFM) in Periparturient Dairy Cows

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Abstract : Considering response of uterus to ecolic effect of oxytocin near the time of parturition, this study was done for investigating the effect of prophylactic administration of this hormone on duration of fetal membrane retention, time interval to first detectable estrus, time interval to first service, and conception rate at first service in cases of both normal parturition and dystocia. For this reason cows with (n=18) and without (n=18) dystocia assigned randomly to treatment (n=12) or control (n=6) groups and received intramuscular injection of 100 IU of oxytocin or 10 mL of normal saline respectively. Further observations and investigations indicate that duration of fetal retention is significantly shorter in treatment group cows compared to control groups, regardless of having dystocia (P=0.002) or normal spontaneous calving (P=0.001). The same trend exists for conception rate at first service in which cows in treatment groups had significantly higher conception rate (CR) in comparison to cows in control groups with (P=0.0003) or without dystocia (P=0.017). The time interval to first detected heat and first service didn't show any difference between groups.

Keywords : conception rate, oxytocin, RFM, time to first service

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