

strip (Multistix[®], Bayer Diagnostics) according to the manufacturer's instructions. Results were recorded as negative, trace, +, ++ and +++.

The correlation between subjective score and percentage of polymorphonuclear cells was extremely high ($R = 0.918$; $P < 0.0001$). Using a cutoff point of 5.5% polymorphonuclear cells as an objective definition of endometritis, subjective assessment as inflamed was 96% sensitive and 98% specific. Similarly, the reagent strip result was highly correlated to polymorphonuclear cell percentage ($R = 0.774$; $P < 0.0001$). A score of + or higher on reagent strips predicted endometritis with sensitivity of 83% and specificity of 94%. Finally, the cytological categorization and reagent strip diagnosis showed a high degree of agreement ($\kappa = 0.599$; $P < 0.0001$) as did subjective cytological categorization and objective cytological assignment ($\kappa = 0.923$; $P < 0.0001$). Agreement between objective categorization and reagent strip category was high ($\kappa = 0.622$; $P < 0.0001$).

These results confirm that reagent strips have utility for diagnosis of mild endometritis in dairy cows in conjunction with low volume uterine lavage. This provides a rapid, inexpensive and simple means of assessing individual cow status or for determining endometritis prevalence in dairy herds.

Keywords: Dairy cow; Endometritis; Leukocytes; Reagent strips

EARLY PREGNANCY DIAGNOSIS BY PALPATION PER RECTUM ON EMBRYO/FETUS VIABILITY IN DAIRY CATTLE

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In bovine practice, palpation per rectum is one of the most frequent procedures performed by veterinarians and is the most frequent method used for pregnancy diagnosis. There is contradictory information about the potential

deleterious effects of palpation per rectum for early pregnancy diagnosis on embryo/fetus viability. The present experiment estimated the effect of palpation per rectum for early pregnancy diagnosis on embryo/fetus viability in dairy cattle. A controlled, randomized block-design experiment with two blocks, one by category and the other by number of embryos was conducted. Five hundred and twenty pregnant dairy cows and heifers with a viable embryo detected by transrectal ultrasonography [TRUS] between days 29 and 32 after artificial insemination were included. The pregnant females were randomly divided into two equal groups: palpation per rectum [PAL group; $n = 258$] and no palpation per rectum [NPAL group; $n = 262$]. The PAL group was submitted to palpation per rectum [PPR] using the fetal membrane slip [FMS] technique once between days 34 and 41 of pregnancy. The fetal membrane slip consists of in the compression of the pregnant uterine horn and letting it slip between the fingers the chorioallantoic membrane. Both groups were submitted to two additional TRUS at days 45 and 60 of pregnancy. Day 45 was used to monitor the potential immediate deleterious effect of PPR on embryo viability. Day 60 was used to monitor the potential delayed deleterious effect of PPR on fetus viability. The diagnosis of embryo/fetus death was made when there was no embryo/fetus heart beat, signs of embryo/fetus degeneration were observed, or when positive signs of pregnancy were absent in a cow/heifer previously diagnosed as pregnant. The overall embryo/fetus death was 14.0%. Embryo/fetus mortality was higher in cows [16.4%] than in heifers [8.8%; $P < 0.025$]. Embryo/fetus mortality was higher in twins [25.5%] than single pregnancies [12.9%; $P < 0.025$]. Embryo/fetus death between PAL [14.7%] and NPAL [13.4%] groups was not significantly different [$P > 0.05$]. It was concluded that PPR for early pregnancy diagnosis using the fetal membrane slip technique did not affect embryo/fetus viability.

Keywords: Cattle; Pregnancy diagnosis; Palpation per rectum; Safety