Validation of color Doppler ultrasonography for evaluating the uterine blood flow and perfusion during late normal pregnancy and uterine torsion in buffaloes

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Abstract:

The aim of this study was to verify the efficacy of color Doppler ultrasonography for diagnosis of degree and duration of uterine torsion in buffaloes. In Assiut province/Upper Egypt, 65 buffaloes (37 with uterine torsion, 28 with normal late pregnancy) were examined clinically and using Doppler ultrasonography. The Doppler indices including resistance index (RI), pulsatility index (PI), time-averaged maximum velocity (TAMV), and blood flow volume (BFV) in the arteries ipsilateral to the uterine torsion (IPUT) and in arteries contralateral to the uterine torsion (COUT) were recorded. Methods of correction were documented along with dam and calf survival. Torsion was recorded postcervically with vaginal involvement in 35/37 (94.6%) of the cases. The degrees of uterine torsion were light and high in 9/37 (24.3%) and 28/37 (75.7%) of the cases, respectively (P < 0.001). Right uterine torsion was present in 36/37 (97.3%) of the cases (P < 0.0001). Pulsatility index, RI, TAMV, and BFV in IPUT and COUT did not differ significantly (P > 0.05) in normal late pregnancy. The PI and RI in IPUT were significantly higher (P

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