

Diagnosis and Surgical Treatment of Uterine Lacerations in Mares (33 cases)

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Uterine lacerations are an uncommon but serious post partum complication. Uterine lacerations can occur in the uterine horn or body. Uterine lacerations can be created in the uterine body during obstetrical procedures or occur spontaneously in the uterine horn or body during parturition. Sequelae of uterine lacerations include hemorrhage, evisceration, and septic peritonitis. Prompt aggressive medical and/or surgical treatment is necessary for survival. The purpose of this study is to summarize the clinical details on a large number (n=33) of uterine laceration cases that were referred to a surgical referral facility for treatment. Specific objectives were to determine anamnesis, clinical and laboratory abnormalities in an attempt to determine key prognostic indicators for survival. We hypothesized that uterine lacerations are more prevalent in the tip of the uterine horns than in the uterine body and that they occur more commonly in the tip of the right uterine horn than in the left.

The medical records of 33 mares with a uterine laceration that was managed surgically at Rood and Riddle Equine Hospital between 1988 and 2000 were reviewed. Signalment, method of diagnosis, location and size of laceration, clinical signs, method of treatment, duration post-partum, duration of illness, duration of hospitalization, survival and laboratory values were tabulated. Student's t-test, Fischer's exact test, and Spearman's correlation coefficients were used to analyze data. Statistical significance was set at $p < 0.05$.

The primary presenting complaints were depression and mild colic. Exceptions were; concurrent large colon volvulus (n=1), evisceration of the small colon (n=2) or large colon (n=1). Previous obstetrical manipulations for dystocia was reported in 10/33 cases. The median for time from parturition to diagnosis was 35 hours (range 12-72hrs). Mean rectal temperature was 100.8 degrees Fahrenheit (range from 97.7-104). Median heart rate was 60 beats per minute (range 40-120). Median respiratory rate was 28 breaths per minute rate (range 12-60). Mean total white blood cell was 4826 cells/ul (range 900-11,500). Mean pack cell volume was 48% (range 33-70). Abdominocentesis (n=29) revealed 48% (14/29) of mares with WBC 100,000 cells/ul or greater (range 28,500-157,200). Mean total solids of peritoneal fluid was 5.0 gm/dl range (3.0 to 6.0). All of the uterine body lacerations could be diagnosed by palpation while only 3/22 body lacerations could be diagnosed by palpation. All cases were repaired surgical either by ventral midline and/or trancervical approach. There were significantly more lacerations in the uterine horn (73%) than body (27%). In the uterine horn lacerations, there were significantly more tears in the right horn (73%) than in the left (27%). Overall, 80% of the mares survived. Non-survivors had significant differences in the following variables; pulse, survivors 62 (+/- 12.4) bpm and non-survivors 95 bpm (+/- 18.9) p -value < 0.001 ; PCV, survivors 45% (+/- 6.4), non-survivors 60% (+/- 8), p -value < 0.001 ; WBC, survivors 5509 cell/ul (+/- 3507), non-survivors 2900 cells/ul (+/- 1193), p -value =0.007.

Keywords: Uterine tear, Uterine Laceration, Uterine Rupture, Postpartum Complications