

Research Summaries II

"Dairy & General"

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155 Referral Hospital Uterine Torsions - New Thoughts On An Old Problem

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Although uterine torsion has been reported in all of the domestic species, it is a condition that is more likely to be encountered by bovine practitioners. The anatomical features of the gravid bovine uterus undoubtedly play a major role, just as the anatomy of the equine gastro-intestinal tract predisposes the horse to colic. Literature on the topic is sparse and the etiology of the condition is open to speculation. All available records of bovine uterine torsions that had been referred to two university veterinary hospitals (OSU 1976-95; 115 cases, and U.I. 1980-95; 40 cases) were collated. The Brown Swiss breed was over represented when compared to the total OSU caseload of cows greater than 2 years of age. No uterine torsions were seen in Jerseys. Although some texts have suggested otherwise, season & age were not factors in this study. As expected, the majority (78%) of cases were at term. Only 22.9% of cows were febrile upon presentation. Heart rate was elevated in 93% (Mean 94.7 ± 21.5) and respiratory rate was elevated in 94.4% (Mean 47.7 ± 19.6). Vaginal discharge was present in 13%, anorexia in 18.7%, and straining in 22.5%. The vagina was involved in the torsion in 63.4% of cases. Torsion severity was predominately 180-270° (55.9%) and 271-360° (22.4%). Left-side torsion was present in 62.5% of cases. Vaginal delivery was possible after manual correction of the torsion (21.2%), or after correction by rolling the cow (17.1%). Cesarean section was performed

immediately in 36.3% of cases. Surgery was also performed if other attempts at correction failed (6.8%), or if the cervix failed to dilate following correction (18.5%). Mean fetal weights exceeded breed means for all breeds represented. The mean weight of male Holstein fetuses (n=25) was 116.3 lb. Fetal survival rate was poor, with 76.6% of fetuses being delivered dead (9% emphysematous). A disparity in fetal gender was evident, with 60.5% of fetuses being male. Retention of the fetal membranes occurred in 60% of cases ($3.4\text{days} \pm 1.9$). The prognosis for cow survival was good, with 78% of cases being discharged. Half of the dead cows were euthanized due to severe vascular compromise of the uterus.

This study shows that large, term fetuses appear to predispose a cow to uterine torsion -irrespective of cow age or season. Some breeds (eg. Brown Swiss) appear to be predisposed to the condition. Evaluation of the vagina is not sufficient to rule out the presence of a uterine torsion. Precervical or cervical torsions were present in over a third of the referred cows. Thus, the diagnosis would have been missed in 37% of cases if palpation per rectum was not performed. We believe that it is essential that a veterinarian examine the orientation of the broad ligaments whenever a mid- to late gestation cow is presented for evaluation of non-specific clinical signs such as change in demeanor.