Management of extreme form of uterine torsion in a doe: a case report
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A two year old mixed breed doe was presented to the ISU Theriogenology Service with a history of prolonged duration of gestation (>1 week) and labor (>36 hours). At presentation the doe was bright, alert, and responsive and displayed no signs of ongoing labor. There was no sign of vulvar discharge nor were there any fetal membranes or structures visible upon physical examination. A speculum examination revealed the caudal portion of the vaginal tract twisted counterclockwise leading to a suspicion of a possible uterine torsion. An abdominal ultrasound exam revealed a single fetus with absence of a heartbeat. A cesarean section was performed and revealed an extreme form of uterine torsion (>360 degrees) resulting in an ischemic uterus and severely congested and dilated uterine vasculature. A complete blood count intra-operatively revealed a low PCV of 14%. A single large dead fetus (full term) was extracted from the uterus and it was untwisted. It took three complete clockwise rotations to return the uterus back to its original position and axis. The dilated uterine vasculature was traced individually and ligated, and a complete ovariohysterectomy was performed. The doe recovered uneventfully after surgery and was then managed medically for her low PCV and other derangements of her blood parameters. Postoperatively, the anemia was addressed via a whole blood transfusion and the doe was started on a regimen on intramuscular procaine penicillin G. Pain was managed with intravenous flunixin meglumine and intramuscular butorphanol. Forty eight hours postoperatively the doe was found to be pyrexic (temperature 104.6 F) and was managed with intravenous flunixin meglumine, topical isopropyl alcohol application, and a fan for evaporative cooling. Investigations into the cause of anemia excluded gastrointestinal nematodes, abomasal ulcers, as well as hemolytic events, and it was hypothesized that the marked, diffuse venous dilation of the uterus and broad ligament, as noted on uterine biopsy, with subsequent blood trapping was a contributing factor to the anemia. McMaster’s examination yielded a moderate Eimeria sp. burden, and the doe was treated with sulfadimethoxine. She was discharged fourteen days after surgery, and had a full recovery to her previous role as a showmanship animal. Uterine torsions are a relatively uncommon occurrence in goats with incidences higher in does carrying a single fetus. Clinical signs range from non-productive labor, abdominal discomfort and constant straining. The present case differs from usual presentations, with the patient showing no apparent outward clinical signs considering the extreme degree of uterine torsion. Such torsions lead to sequestration of blood in major vascular beds such as the uterine arteries leading to acute anemia. Moreover, detorsion of the affected organ can lead to reperfusion injuries and further derangements in the cardiovascular status of the patient. Prognosis for acute long-standing, extreme uterine torsions is poor with regards to the future health and breeding prospects of the affected animal owing to ischemic damage to the uterus. The present case highlights these aspects as well as the successful surgical and medical management leading to a favorable outcome in terms of patient health.

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