Transcutaneous ultrasound-guided twin reduction in a Quarter Horse mare

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Twin pregnancies maintained through late gestation are undesirable due to complications such as abortion, dystocia and may prove fatal to the mare,[1] as well as complicate the resumption of a normal estrous cycle and rebreeding of the mare.[2] Current options for treatment of a twin pregnancy include manual reduction per rectum, cranio-cervical dislocation, transvaginal ultrasound-guided, or transcutaneous ultrasound-guided twin reduction.[2] A healthy, 9-year-old Quarter Horse mare was referred to the Texas College of Veterinary Medicine for transcutaneous ultrasound-guided twin reduction. Abdominal ultrasonography identified two fetuses in the right ventral abdomen, both with normal tone and heart rate. The larger fetus (thoracic diameter 7-8 cm) was present in the right cranioventral abdomen, while the smaller fetus (thoracic diameter 6-7 cm) was present in the right inguinal region. The mare was sedated and the right caudoventral abdomen was clipped, aseptically prepared, and a local anesthetic (carbocaine) was applied. Using ultrasound guidance, an 18g 3.5" spinal needle was inserted into the heart of the smaller fetus and 6 million units (15-20 mLs) of procaine penicillin G (PPG) was injected to induce cardiac arrest. The larger fetus maintained a normal heart rate (93 bpm), tone, and rhythm throughout the procedure. Postoperatively the mare was treated with flunixin meglamine, PPG, and altrenogest and recovered normally. Abdominal ultrasonography later verified the presence of the larger fetus with a normal heart rate (131 bpm) and tone, and the smaller fetus, which had no heartbeat and decreased tone. The mare delivered a viable-term foal in addition to the mummified remains of the non-viable fetus without complications. This case highlights a common reproductive problem in the mare and is an example of the optimum outcome of a transcutaneous, ultrasound-guided twin reduction procedure.

Keywords: Mare, twin, pregnancy, reduction, transcutaneous, ultrasound-guided

References

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