A challenging case of ampullary blockage in a geriatric American Saddlebred stallion
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A 21 yr-old stallion was referred for inability to mount the phantom and subsequent ejaculatory failure during four sequential mounting attempts. Upon presentation, the stallion achieved erection but refused to mount the phantom. Transrectal ultrasonography revealed distended ampullae with hyperechogenic material in the glandular lumen, consistent with ampullae blockage. Bilateral hindlimb suspensory ligament degeneration and orthopedic pain, localized to the pelvis and/or hip, were the primary physical limitations to mounting. Therapy for the orthopedic pain included a combination of shockwave therapy, electro-acupuncture, firocoxib (56 mg PO), gabapentin (5 mg/kg PO) and corrective shoeing. On two occasions, ampullae massage, oxytocin (20U, IV) and chemical induction of ejaculation (2,000mg imipramine PO and 250mg xylazine IV) were attempted but this was unsuccessful. Multiple attempts at collection on the ground and with the phantom were performed for four days with vigorous ampullae massage, imipramine (1,000 mg PO) and oxytocin prior to collection. On day 5, the stallion successfully mounted the phantom and ejaculated. The filter contained tan material consistent with semen plugs and the sample consisted mostly of detached sperm heads. Collection was repeated twice daily on subsequent days using a combination of teasing, imipramine, and oxytocin. The first five ejaculates resulted in necrospermia and teratozoospermia containing 20-30 billion sperm. From ejaculates six to eleven, the percent of teratozoospermia decreased from 85% to 45% and asthenozoospermia decreased from 90% to 50%. Screening for antibodies with flow cytometry revealed 56% IgA-bound spermatozoa and 1.7% IgG-bound spermatozoa. IgA binding could explain the sperm clumps observed in collections 10-12, after the ampullae were unblocked. Ejaculatory failure can be multifactorial and identification of the cause is paramount to resolving the problem. Herein, uncontrolled orthopedic pain prevented frequent attempts at ejaculation which were required to relieve ampullae blockage. This case highlights a multidisciplinary approach to resolve a challenging case.

Keywords: Ejaculatory failure, sperm, pain management, horses