Temporary aspermia following equine viral arteritis (EVA) vaccination in a stallion
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Significance
The following case demonstrates an unlikely sequel that developed following EVA vaccination in a stallion.

Case report
Aspermia with bilaterally enlarged ampullae was diagnosed in a 17-year-old Appaloosa stallion by the referring veterinarian during a prebreeding season fertility evaluation. Despite repeated collections with rectal massage of the ampullae and treatment with oxytocin and prostaglandin F2α, a normal ejaculate could not be obtained. All mares bred by this stallion in the previous breeding season became pregnant. The owner was concerned that the cause of the stallion’s aspermia was the result of EVA vaccination (Arvac®; Zoetis; Madison, NJ) that was administered eight weeks previously. Three weeks following diagnosis of aspermia from the referring veterinarian, the stallion was presented to the Oregon State University Veterinary Teaching Hospital. On presentation, the testes had a turgid consistency with a scrotal width of 10 cm. Transrectal palpation and ultrasonography revealed bilaterally enlarged ampullae. The stallion had normal libido when presented to an estrous mare and mounted the phantom and ejaculated on the first attempt. Examination of the ejaculate revealed few sperm (<1 million/mL) with concurrent low seminal alkaline phosphatase (8 U/L), consistent with a lack of caudal epididymal secretions. Semen bacterial culture yielded minimal growth of α-hemolytic Streptococcus sp. (1+) and Corynebacterium sp. (2+), consistent with normal flora. Virus isolation and polymerase chain reaction of the ejaculate were negative for the equine arteritis virus. Urethroscopy was performed, revealing an inflamed soft tissue mass on the seminal colliculus. The significance of this mass was unknown as the openings of the ampullae and the seminal vesicles appeared to be normal and unobstructed. Testosterone, luteinizing hormone and follicle stimulating hormone were measured by radioimmunoassay and were within normal limits.

Follow up
The stallion was re-evaluated by the referring veterinarian one month after referral and had a normal spermiogram. Natural and experimental EVA infection can cause ampullitis in stallions; however, it is not known if attenuated infection following immunization with a modified-live EVA vaccine could have caused a temporary ampullitis with aspermia as seen in this stallion. It is important to mention that thousands of stallions have been vaccinated with this product and no similar side effects have been reported to the manufacturer.

References