Life threatening complications of a third degree perineal laceration in a Quarter Horse mare

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Third degree perineal laceration involves complete disruption of the rectovestibular shelf, perineal body and anal sphincter, resulting in a common vault between the rectum and the vaginal vestibule. It is generally agreed that immediate attempts to repair the laceration are often unsuccessful and surgical reconstruction should be delayed for at least 3 - 6 weeks to allow second intention healing. However, there is limited information regarding potential life threatening complications in the presurgical second intention healing phase. A 3 year old primiparous Quarter Horse mare was presented for a third degree perineal laceration, extending approximately 20 cm cranially into the perineal body. Foaling was unattended and a live foal delivered. At 24 hours postpartum, there was severe inflammation and infection of involved tissues, but the vestibulovaginal fold remained functional. Treatment included tetanus prophylaxis, flunixin meglumine (1.1 mg/kg IV SID for 7 days) and sulfamethoxazole/trimethoprim (30 mg/kg PO SID for 30 days), as well as daily wound cleaning, topical antibiotic ointment, and dietary changes to soften feces. At 47 days postpartum, the mare had intense abdominal contractions (1 - 2 contractions per second) eversion of the vestibulovaginal floor and external urethral sphincter. These clinical signs did not subside after initial treatment with N butylscopolammonium bromide (160 mg IV) and flunixin meglumine (500 mg IV) administered on farm. The mare was transported to a referral equine service at the Veterinary Teaching Hospital Renato de Andrade (Minas Gerais, Brazil). Upon arrival, contractions were suppressed by epidural anesthesia with a combination of 5 ml of lidocaine 2% and 1 ml of xylazine 10%. The uterus was involuted, with no edema or intraluminal fluid. No abnormalities were identified in the cervix via a vaginal speculum exam. External urethral sphincter was severely inflamed and assumed to be the inciting factor for signs of discomfort and recurrent abdominal contractions. Straining resumed approximately 5 hours after epidural anesthesia and the mare presented intense pollakiuria. Epidural anesthesia was given every time the abdominal contractions and vestibulovaginal eversions became more frequent and severe (~ twice daily for the first 5 days, then once daily for 3 days). A course of enrofloxacin (5.5 mg/kg IM SID) and flunixin meglumine (1.1 mg/kg IV SID) was implemented. Additionally, temporary relief was achieved for: 1) 2 - 3 hours with topical lidocaine spray on the external urethral sphincter; 2) 7 hours with phenazopyridine (4 mg/kg PO TID); and 3) 4 - 5 hours after voiding urine from the bladder with a Foley catheter and infusing 200 ml of cold lactate ringer solution with 10 ml of lidocaine 2%. Eight days after presentation to the referral center, the urethritis seemed to be resolving; however, the mare still had mild contractions 1 - 2 times a day, which precluded any attempt to perform a surgical perineal reconstruction. At 16 days, despite responding moderately to the palliative care, the mare suddenly exhibited severe contractions that led to bladder eversion and rupture, accompanied by evisceration and sudden death. This report highlighted the need for frequent medical monitoring during second intention healing phase to address any potential life threatening complications that may arise secondary to perineal lacerations.

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