**Urovagina**

**What is Urovagina?**

Urovagina is a cranioventral deviation of the vagina that causes the urethral orifice to be pulled cranially. This then causes urine to splash back into the vestibule and vagina when voiding the bladder. This leads to constant inflammation of the vagina, cervix, endometrium and urine scald. Occasionally, this can progress to an infection.

**Who is at Risk?**

Older pluriparous mares are at risk due to repeat stretching.

**Who is a Good Candidate?**

Individuals that have endometrium that is not severely damaged on biopsy are the best candidates

**Caudal Retraction of the Transverse Fold**

This technique is only for mild cases as it only corrects a small distance. Incisions are made along the margins of the transverse fold in the horizontal plane. These are then closed in 2 layers, both as an inverting pattern.

**Urovagina surgery cont.**

**Brown’s Technique – Urethral Extension**

This technique extends your mare’s urethra all the way out of the vestibule. The ventral surface of the transverse membranous fold is incised to encircle the urethral orifice. This is continued caudolaterally. The incision is closed in three layers.

**Post-Op Care for Urovaginal Surgery**

The catheter will be left in for 2-3 days after surgery. Your veterinarian should provide you with post-operative pain medication (12-24 hours) and antibiotics (3-5 days). Your mare will need to be on sexual rest for 4-6 weeks after surgery. It is recommended that a veterinarian recheck the surgical site in 2-3 weeks after the operation.

If you have any questions, always call a veterinarian.

**References**


Caldwell, Fred J., DVM, MS, Diplomate ACVS. “Urogenital Surgery in the Mare.” Auburn University College of Veterinary Medicine. 12 Nov. 2014. Lecture.

Nicole Seward, Class of 2016
Pneumovagina

What is Pneumovagina?
Pneumovagina usually occurs from a cranially sunken anus that causes a cranial tipping of the vulva. This sets up your mare for potential constant fecal contamination. This condition is commonly termed 'wind sucking' as the mare with aspirate air into the tubular aspects of the reproductive tract. This sets her up for an ascending infection and chronic inflammation. This can ultimately lead to infertility.

What Causes Pneumovagina?
Pneumovagina can be caused by a tearing or stretching of the vulvar seal or the vulvovestibular sphincter. Alternatively, it may be caused by a sunken perineal body which causes a cranial displacement of the anus. In severe cases, the anus may be extremely sunken and the dorsal aspect of the vulva lies near horizontal on the ischium. It may be a result of trauma or poor confirmation.

Is my Mare at Risk?
Pneumovagina is most commonly seen in:
- Underweight mares
- Aged mares
- Pluriparous mare
- Mares with dystocia
- Relaxed perineum in estrus
- Caslick’s index > 150 (poor perineal confirmation)

Should my Mare Have Surgery?
A Breeding Soundness Exam (BSE) should be performed on the mare before continuing with surgery. The best candidates for surgery are those that have a good chance of restoring fertility as indicated by BSE.

Surgical Correction

If you are planning to pursue surgery for your mare, make sure to have her up to date on her tetanus toxoid vaccination.

Caslick’s Vulvoplasty
This will be the most common correction for poor perineal confirmation. In this procedure, the veterinarian will decrease the size of the vulvar opening. The upper 2/3 of the vulva will be sutured together.

- Mare is restrained, sedated if necessary, tail wrapped and pulled away
- Local block at surgical site
- Tissue cut at the labia
- Close with 0 or 2-0, non-absorbable
- Continuous pattern
- 4 fingers fit in ventral opening

When to Remove?
Suture from original surgery will come out in 10-14 days. The Caslick’s needs to come out 2 weeks prior to foaling.

Can I Still Breed my Mare with a Caslick’s in?
Yes! The placement of a breeding stitch allows stretching of the vulva to a degree and then provides enough tension to protect the Caslick’s. A breeding roll can also be used to prevent full penetration of the penis.

Slusher’s Modified Vestibuloplasty
In the dorsal aspect of the vestibule, an isosceles triangle piece of tissue is removed. Sutures are placed from the apex to the base of the triangle while maintaining a constant caudal pull. This makes the vulvar confirmation vertical. A Caslick’s is placed at the bottom of the vestibuloplasty. This technique is used to correct both pneumovagina and urovagina.

Perineal Body Transection
This technique also corrects both urovagina and pneumovagina. The muscle and ligament layers between the rectum and the caudal reproductive tract are separated. This should allow the vulva to sit upright. In this method, the incision is not closed but left to heal on its own instead.