

Equine Vulvar Conformation Correction

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Broodmares are a very important aspect to running an equine breeding business and in order to produce healthy foals the mares in return need to be healthy. However, reproductive failure in mares is a common problem and can be accounted to many issues. These issues can include improper insemination procedures, poor semen quality, intrauterine infection, poor body condition score, and many more. They can all be tied together when discussing the issue of poor vulvar composition. They can also all be corrected either surgical or therapeutic. Perineal and vulvar composition is one particular issue that is becoming more and more common. It can be caused by many factors throughout a broodmares life. Luckily, there are many surgical techniques to repair such an issue.

Basically the vulva is the first barrier between the uterus and all outside bacteria. When there is a deformation of the vulva there won't be proper protection and in return will negatively affect breeding and pregnancy rate. "Normal labia are full and firm and meet evenly in the midline, and 80% or more of the vulvar opening is below the brim of the pelvis." (1) Trauma to the vulva can be caused by poor body condition score, stretching from previous births or damage during breeding procedures, and age. When a horse drops in body condition score, it loses fat and muscle tissue which can cause sinking of the anus and can expose more of the labia to fecal droppings allowing bacteria to enter the reproductive tract. Stretching or damage to the perineal and vulvar area during foaling or breeding can decrease muscle tone and allow bacteria to enter the uterus. "Wind sucking" is also a common issue that happens when muscle tone is lost. Wind sucking allows bacteria to enter the uterus via the air sucked into the uterus. Lastly, as a mare ages she may lose weight or experience other body changes that cause the anus to sink and expose more of the labia. Sometimes perineal and vulvar issues can be congenital but that is very rare. Wind sucking can also occasionally happen during estrus, because the vulvar muscles are more relaxed, but is not a common problem.



Normal Vulva



Abnormal



Abnormal

Perineal and vulvar conformation can be corrected therapeutically. Increasing a horses body condition score is a good place to start. Otherwise most of these issues must be corrected via surgery. Caslicks is the most common procedure and there are many different versions of the caslicks. Research conducted on modification of the Pouret's procedure was conducted on 16 jumping mares older than 20 years of age and proved to be an effective procedure. The Pouret's procedure are as follows:

1. The mares were sedated and restrained before receiving anesthesia.
2. Vulvar area was cleaned and sanitized then local anesthesia was injected locally into the vulvar lips.
3. 2 vertical incisions were made through the submucosal and connective tissue layers of the vulvar lips.
4. 1 horizontal incision is made between the anus and the vertical incisions.
5. 8 stitches were used to pull together the two lips vertically (rather than horizontally).
6. The sutures were removed after 12 days.



Step 1



Step 2

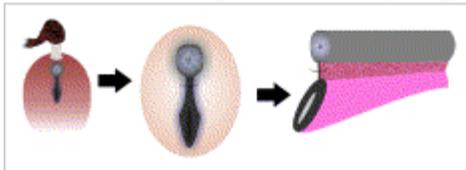


Step 3 & 4

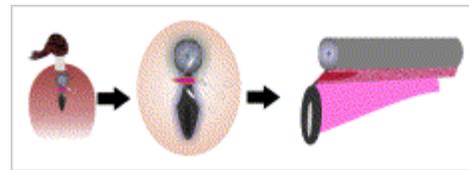


Step 5

As the images show below the vulva opening is directly under the anus leaving it exposed to bacteria from feces. As you can see after surgery the opening is pulled forward from the anus and the opening is less likely to become contaminated with bacteria from feces. The horizontal incision is what initially pulls the labia forward and the vertical incisions close the top of the vulva opening to decrease contamination risks.



Before



After

The research concluded that performing this type of caslicks was effective. Once the stitches were removed and the horses were bred, all 18 were termed in foal.

To conclude, performing a caslicks on a mare with poor perineal and vulvar conformation does in fact help the mares reproductivity. The conformation of the vulva after the caslicks decreases the chance of bacteria entering the uterus through the vulva. However, proper breeding and foaling practices should also be followed to decrease the risk of bacteria entering the reproductive tract. Once a mare has had a caslicks it may have to be reopened during breeding and closed while carrying the pregnancy and reopened again before foaling and repaired and re-stitched after foaling depending on the initial conformation of the vulva and how much of it was stitched close during the first caslicks.

Work Cited

1. Papa, Frederico O., et al. "Equine Perineal and Vulvar Conformation Correction Using a Modification of Pouret's Technique." *Journal of Equine Veterinary Science* 34.3 (2014): 459-64. Print.
2. Pycok, Jonathan F. "Vulval Conformation, Common Vulval Injuries and the Caslick's Procedure." *Articles Concerning Equine Reproduction* (2003): n. pag. Print.
3. Ball, Michael. "Caslicks Procedure." *The Horse*. The Horse Media Group LLC, 1 May 1997. Web. <<http://www.thehorse.com/articles/10675/caslicks-procedure>>.