

## 53

## Caslick Operation or Vulvoplasty

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### Introduction

Defects in perineal conformation involving abnormal declination of the labia or defects in mucosal apposition of the labia are most often remedied by performing a vulvoplasty (Caslick operation). Other conditions, such as a positive Windsucker test (incompetent vestibulo-vaginal fold) may also warrant vulvoplasty. Occasionally, mares may have no obvious perineal abnormalities, but may have a vulvoplasty performed as a preventative measure. This is especially true in young racehorses that have little intrapelvic fat and thus have an acquired angulation of the vulva.

#### Equipment and Supplies

Tail wrap, tail rope, non-irritant soap, roll cotton, stainless steel bucket, disposable liner for bucket, paper towels, exam gloves, twitch, skin stapler, staple removal device, local anesthetic, sterile surgery gloves, surgical pack, suture material with a cutting needle, topical disinfectant spray.

### Initial Stage of Technique

- Remove feces from the rectum.
- Place a tail wrap and tail rope (see Chapter 4).
- Clean and dry the perineum of the mare (see Chapter 3).
- Place a twitch on the mare if needed. Sedation is not normally needed, but may be administered.

### Temporary Staple Technique

- Wearing examination gloves, grasp the dorsal vulvar commissure and pull it upward to align both the vulvar labia in close apposition (Figure 53.1).

- Using a surgical skin staple gun, place individual staples 1 cm (0.4 inches) apart, starting at the dorsal commissure and proceeding downward (Figure 53.2). There is no incision of the mucosa with this technique.
- The line of staples should extend to below the level of the pelvic floor while still allowing approximately 6 cm (2.4 inch) of open vulva to allow for urination (Figure 53.3).
- The mare may become more resistant to stapling as the procedure progresses, so proceed with caution.



**Figure 53.1** Grasping the dorsal commissure of the vulva in preparation for staple vulvoplasty.



**Figure 53.2** Placement of skin staples in the vulvar labia for staple vulvoplasty.



**Figure 53.3** Finished temporary vulvoplasty.

- The staples provide a temporary vulvoplasty that may be removed and replaced to allow for breeding or treatment of the uterus. Once the mare has been confirmed pregnant, a permanent vulvoplasty may be placed.

### Comments

- The staples will remain present for days to months depending on the mare's behavior and how well the staples are placed.
- Occasionally, single staples may fall out and need to be replaced to maintain the integrity of the vulvoplasty.
- Removal and replacement of staples for uterine therapy or for breeding may be accomplished with restraint using a twitch.
- A permanent vulvoplasty (Caslick operation) may be performed at any time.

### Permanent Suture Technique

- The goal of the traditional Caslick procedure is to provide permanent apposition and healing of the dorsal aspect of the left and right vulva to minimize bacterial contamination and aspiration of air.
- Wearing examination gloves, grasp the vulvar lips and instill a local anesthetic (lidocaine or carbocaine) at the mucocutaneous junction on both sides, starting at the most ventral aspect of the vulvoplasty and proceeding upward to the dorsal commissure, using a 20 gauge 4 cm (1.5 inch) needle with a total of approximately 20 ml of local anesthetic.
- The most ventral extent of the vulvoplasty should extend below the level of the pelvic floor while still allowing approximately 4–5 cm (1.5–2 inches) of open vulva to allow for urination.
- A final wash of the perineum may be performed.
- There are two methods to incise the vulvar mucosa. In the first, a 0.5 cm (0.2 inch) strip of mucosa at the mucocutaneous junction is removed from the left and right labia, making sure to remain on the mucosa and to not involve the skin (Figure 53.4). The two strips are joined at the dorsal commissure. In the second method, a scalpel blade is used to make an upside down “U”-shaped incision in the same fashion as the removal of a strip of mucosa, but without removal of any tissue.
- The two labia are sutured together with suture material fixed to a cutting needle using a Ford interlocking or similar suture pattern (Figure 53.5). The type and size of the suture material depends on clinician preference and can range from 2-0 to No. 2. The use of non-absorbable



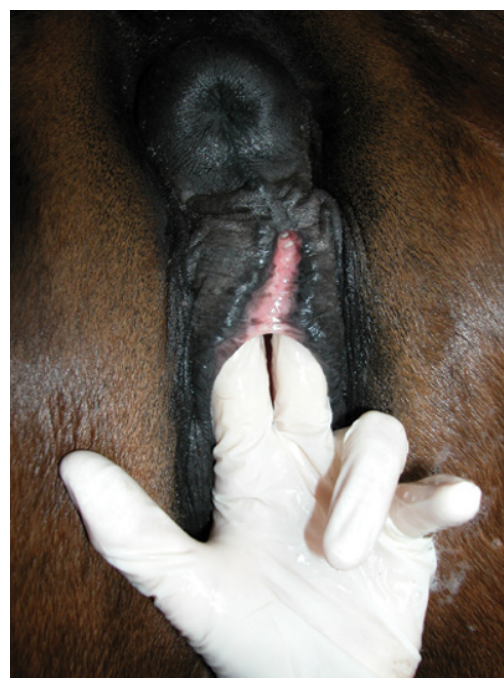
**Figure 53.4** Trimming mucosa from the inner labia.

sutures requires that suture material be removed in about 2 weeks. Alternatively, the use of absorbable suture material alleviates the need for suture removal. Sutures should be placed approximately 0.5–1 cm (0.2–0.4 inches) apart and about 0.5–1 cm from the cut edge of the mucosa.

- A topical water-resistant aerosol bandage (such as an aluminum powder spray) may be applied over the completed surgical site if desired.
- Sutures (non-absorbable suture material) should be removed in approximately 14 days.
- The healed vulvoplasty will remain intact until opened. If the mare is pregnant, the Caslick must be opened 10–14 days prior to the due date or earlier if the mare shows clinical signs of parturition.
- Removal or opening of the vulvoplasty can be performed with the mare in stocks or restrained while standing in a stall. If the membrane is thick, a local anesthetic may be infused in a line along the area to be incised. If the membrane is thin, it may be incised with sharp Metzenbaum scissors without prior infusion of local anesthesia (Figures 53.6 and 53.7). In most instances, and certainly in the peripartum mare, the vulva is opened completely to the level of the original dorsal



**Figure 53.5** Suturing the labia together.



**Figure 53.6** Placement of fingers for the removal of the vulvoplasty.



**Figure 53.7** Cutting the co-joined mucosa to remove the vulvoplasty.

### Further Reading

Pascoe RR. 1979. Observations on the length and angle of declination of the vulva and its relation to fertility in the mare. *J Reprod Fertil Suppl* 27: 299–305.

commissure. In contrast, the vulva may be partially opened if the goal is to facilitate breeding or uterine therapy in a non-pregnant mare. Additional options to be considered when opening a Caslick include sedation of the mare, applying a twitch, placing a tail wrap, evacuating the rectum of feces, and washing the perineum.

- One should be advised to stand to the side of the mare when opening the Caslick to avoid injury. No aftercare is required after cutting the mucosa.

### Comments

- At the time of suture removal, the seal may be evaluated by placing two gloved fingers underneath the joined vulvar lips to examine for area(s) that are not co-joined. If the areas are greater than 2 cm (0.75 inches), a second surgery may be required.
- Mares with urovagina may have more urine retention with a vulvoplasty due to the decrease in effective vulvar opening.
- Scar tissue may form if the initial incision involves the vulvar skin, making subsequent vulvoplasties more difficult to perform.
- Mares may be bred through a speculum, bypassing the need to remove a Caslick (see Chapter 46).

Purswell BJ, Moll HD. 1999. Surgery of the vulva and perineum. In: Wolfe DF, Moll HD (eds). *Large Animal Urogenital Surgery*. Baltimore: Williams and Wilkins, pp. 91–5.