**Caslick’s Vulvoplasty in mare**

**Indication**

 Pneumovagina in mare is caused by faulty closure of lips as a result of poor conformation or injury. Old, thin, debilitated mares with sunken ani usually are more prone to pneumovagina. Mares in which the lips of vulva are tilted towards the anus are prone to vaginitis, cervicitis, metritis and infertility. Caslick operation prevents the involuntary aspiration of air into the vagina.

**Surgical Anatomy**

1. Vagina is a tubular passage which extends horizontally from the neck of uterus to the vulva.
2. Vagina is related dorsally to the rectum, ventrally to the bladder and urethra, and laterally to the pelvic wall. Most of the vagina is retroperitoneal.
3. Vulva is a terminal part of the genital tract and is continuous in front of the vagina and opens externally at the vulvar cleft 5-7 cm below the anus.
4. At the anterior extremity of the ventral wall of the vulva 10-12 cm from the ventral commissure is the external urethral orifice.

**Control and Anesthesia**

 After application of ear twitch or proper tranquilization, about 5 ml of local anesthesia is infiltrated at each side on vulvar labial margin.

**Site of Operation**

Musculocutaneous junction of the vulva and labia.

**Surgical Technique**

1. After proper cleaning of perineal region, the tail is bandaged and secured out of surgical field.
2. A ribbon of mucosa about 3 mm wide is removed from vulvar labium using scissors. Thumb forceps is used to graft the ribbon of tissue to stretch the area by applying downward pressure, while removing the mucosa.
3. Depending upon the conformation of individual mare, upper half of vulva to as much as 70% of its length is sutured using a simple interrupted suture pattern or simple continuous or vertical mattress suture or continuous interlocking pattern with a non absorbable non capillary suture material like 2-0 nylon or no. 2 polypropylene.
4. A breeder’s stitch using a sterile umbilical tape may be inserted ventral to Caslick closure after infiltration of anesthetic locally to avoid excessive stress on suture line at its ventral end during breeding or for examination by speculum. This stitch should not be too ventral that it may interfere with breeding.

**Post-operative Care**

1. Systemic antibiotics are used for 3 or 4 days.
2. Antibiotic cream is applied at suture line. Sutures can be removed 7 to 10 days post-operatively or after complete healing.
3. The operation for pneumovagina should be performed 1 or 2 days after foaling.
4. The labia may also have to be separated during manipulation of reproductive tract for examination or therapy. Once labia has been separated, the surgery should be redone as early as possible to prevent pneumovagina.
5. When the operation is performed during the breeding season, removal of sutures may result in wound break down at coitus. Sutures are thus often left in-situ until mare has been tested pregnant.