1954

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Recommended Citation
Hensley, Robert M. (1954) "Episioplasty In The Broodmare," Iowa State University Veterinarian: Vol. 16 : Iss. 1 , Article 4.
Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol16/iss1/4

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Episioplasty In The Broodmare

* Robert M. Hensley

Episioplasty or plastic repair of the vulvo-perineal region is indicated in the case of the barren broodmare whose infertility is due to faulty conformation in this region or to vulvar defects. By means of this relatively simple operation, otherwise useless mares may be returned to the ranks of valuable producers.

Mares in which the perineal area is sunken so that the vulva assumes more of a horizontal than vertical angle are predisposed to bacterial contamination. This conformation is exaggerated when the animal is thin or has produced many foals so that the external genitalia are flabby and lack proper tone. In some mares the constrictor vulvae muscle is found to be ruptured, partially or completely, on one or both sides, while the surrounding tissue is intact. This may be the result of injury at parturition, service, or possibly occurs as a congenital defect since it has been observed in the virgin mare with an otherwise normal vulva.

The above conditions predispose to what is known as “vaginal windsucking” in which air is aspirated into the vagina. According to Sager, this is undoubtedly the most common cause of sterility in Thoroughbred mares. During defecation fecal fluids are aspirated into the vagina, and this is the source of the infection causing infertility. It must be remembered that during estrus the vulvar constrictor muscle relaxes physiologically; contaminating bacteria may be aspirated at this time.

Episioplasty is best done during estrus when the labiae are less sensitive, but it may be performed without regard to the cycle. With the mare in a stocks or placed next to a stall partition with an attendant at the hip to keep her from moving away from the wall toward the operator, the tail is bandaged from the base to a point below the vulva. The anus, perineum and vulva are scrubbed clean of smegma with soap or detergent and water. The vulva is then defatted with ether and wiped with alcohol.

A copious vaginal discharge will interfere with the healing of the wound and may prevent complete closure; therefore, a tablet of aureomycin, terramycin, or some other suitable antibiotic may be inserted into the vagina or placed at the external os of the cervix before operating.

The ventral limit of the operation is determined by placing the forefinger on the floor of the ischium in a horizontal manner. About one-half an inch below this point a bleb is made in the mucocutaneous border of one of the vulvar lips using 2 percent procaine. A corresponding bleb is made on the opposite side; thus the ventral limit of the operative field is clearly defined. Using a two-and-one-half inch 20-gauge needle, the mucocutaneous border of each labia is infiltrated up to the dorsal commissure. A twitch usually suffices for restraint during the anesthetization.

The mucocutaneous junction is grasped at the site of the initial bleb with a thumb
forceps. Using curved scissors, a one-quarter inch wide strip of the mucocutaneous tissue is removed from each labia up to the dorsal commissure where the scarifications of both sides are made continuous. After approximating the edges of the wounds at their ventral extremities, 22 mm. Michel wound clips are applied with a Michel wound clip forceps, working dorsad until the entire length of the scarified labiae is approximated.

Tetanus antitoxin is injected prophylactically unless the animal has been immunized with toxoid within a year. The tail bandage is left on for at least one day to prevent the hairs from being enmeshed in the clotting blood. The wound clips may be removed in from six to nine days.

Normally, in the case of only slight vaginitis or cervicitis, the body's defenses will overcome the infection. For this reason the mare is allowed to go at least one heat period before being bred. Prior to service a stay suture of umbilical tape is placed one-half inch above the artificial dorsal commissure around the vulvar constrictor muscle to prevent the thin raphe of tissue from splitting during copulation. Yet, it must be loose enough to allow for normal stretching of the surrounding tissues. This is removed after the stallion has served the mare.

The mare is observed closely when foaling time approaches. When parturition is imminent, the vulva must be opened to its original size to avoid the possibility of lateral tears occurring. A probe pointed bistoury or blunt scissors may be used. The vulva should be resutured immediately after the placenta is passed or before the labial wounds show granulations, usually a 24-hour period. If the suturing can be done at this time, further scarification will be unnecessary. This operation can be performed four or five times before there is too much induration or loss of substance for it to be practical.

References
2. Emmerson, M. A. Personal communication (1952).

BERGMAN HONORED

Dr. H. D. Bergman was nominated to receive the Alumni Medal by the Alumni Association's Committee on Honors and Awards, "in recognition of long, loyal and outstanding service to Iowa State College and its ideals." The medal was presented at the Alumni Day Dinner program, June 13, 1953.

Dr. Bergman was head of the Department of Veterinary Medicine and director of the Veterinary Research Institute from 1943 to 1952. He received his D.V.M. degree from Iowa State in 1910, and did graduate work at the University of Chicago in 1911. He was called back to organize the Department of Veterinary Physiology and Pharmacology.

He has been very active in both state and national professional organizations. He is past president of both the Iowa and the American Veterinary Medical Associations and of the Association of the Deans of the American Colleges of Veterinary Medicine.

Aside from his veterinary medical activities, Dr. Bergman has served as Iowa State's faculty representative to the Big Seven Athletic Conference, serving as secretary and as chairman. He was a member of the executive committee of the Iowa State Athletic Council for several years and has been president of the Memorial Union Corporation and the Iowa State College Research Foundation.

A deficiency of vitamin-C is sometimes demonstrated as the cause of skin trouble in calves.

Last year twelve states reported tests for paratuberculosis. Of the 2,849 tests conducted, 168 reactors (5.9 percent) were revealed. Testing was limited to herds showing clinical evidence of the disease.

Flies can be controlled by an insecticide called Dieldrin. Strips of screen are dipped into the insecticide and hung from the ceiling of the barn. The flies die soon after contact.

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