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Subcutaneous Caudal Myotomy

(Tail Setting)

*Dr. Oliver W. Whitcomb**

THIS operation is a form of cosmetic surgery confined by fashion almost exclusively to the show horse. The object of the operation is to remove the function of the depressor muscles of the tail thereby enabling the horse to carry its tail higher than normal. The higher carriage of the tail adds much to the beauty of the animal in the show ring and on the bridle paths.

The operation is comparatively simple and is performed with the patient in the standing position. Restraint is accomplished by placing sidelines or breeding hobbles on the hind legs and applying a twitch to the upper lip. The tail should be held firmly over the back of the animal throughout the entire operation. The usual preoperative precautions should be used in preparing the surgical field in order to provide as aseptic an operative site as possible.

Anesthesia is accomplished by using a local anesthetic such as 2 percent procaine hydrochloride solution. The anesthetic should be injected as close to the base of the tail as possible for this is the place at which the muscles are to be severed. Infiltration of tissues can be accomplished by the injection of 15–20 cc. of the anesthetic solution through a 20 or 22 gauge needle into each ventral coccygeus muscle. Sufficient time, usually 10–15 minutes, should be allowed for the anesthetic to take effect.

* Ed. note: Dr. Whitcomb is on the staff at Iowa State College. He received his D.V.M. degree from Iowa State College in 1949 and is now associated with the Department of Surgery.

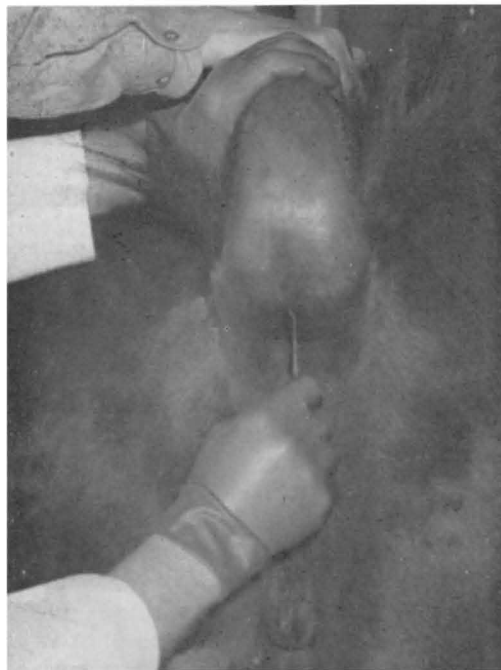
A midline incision through the skin is made in the depression between the muscles on the ventral surface of the tail. This incision should be made about 1½ in. from the base of the tail and should be less than ½ in. long. A nicking knife is introduced into the incision with the blade parallel to the long axis of the tail. The knife is passed upward and forward until it has reached the vertebrae. The knife should be directed slightly laterally at the same time in order to avoid the middle coccygeal vein and artery. With the knife in this position turn the cutting edge of the blade toward the muscle, and with a continuous motion of the handle using the skin incision as a pivot, cut the muscle from its deep face toward the fascia and skin.

Cutting is continued until the muscle is completely severed. The operator knows when the muscle is divided by the relaxation that takes place and by palpating the knife blade through the skin and fascia. The muscle should be severed completely to the skin but the skin should remain intact and uninjured. Withdraw the knife to the skin incision and operate the opposite muscle in a similar manner. Hemorrhage is controlled during the operation by keeping the tail firmly over the back. There is very little hemorrhage if the hold on the tail is not relaxed. A prophylactic injection of 1500 units of tetanus antitoxin should be given.

The tail should be maintained over the back until the tail set has been put in



Anesthetic Injection



Midline Incision



Severing Muscle



Tailset Applied

place. Sulfanilamide powder is used to cover the skin incision. A previously fitted tail set with sterile bandages and pads is put in place. The tail set provides a threefold purpose: it provides a pressure pack for the control of hemorrhage, helps to keep out infection, and holds the tail in the desired position.

Post operative care should be handled by the trainer or groom or any person who is experienced and competent in the use of a tail set. The tail set should be changed each day and the tail elevated carefully over the back. Combined up and down and lateral manipulation should be performed in order to break down adhesions and prevent the cut ends of the muscles from healing together. The daily breaking down of adhesions requires about 10-15 minutes of manipulation and should be continued for approximately two weeks. Sulfanilamide powder and clean sterile tail set pads are replaced daily until the skin incision heals. The tail set should be worn continuously for 10-12 weeks after the operation.

The success of this operation depends largely upon the aftercare. If the adhesions are not broken down completely each day and the tail kept straight in the set, a crooked tail is quite likely to develop. The tail should be held firmly in the tail set. If the tail is too loose, bruising is likely to develop; if the tail is too tight in the set, necrosis and sloughing may occur. It is for this reason that a man experienced in the handling of the tail set should be in charge of the post operative care.

Artificial Breeding

The number of dairy cows enrolled in artificial breeding associations approached the three million mark in 1949, which means that one cow in nine in the United States will probably be bred artificially in 1950. Wisconsin, the leading state since 1942 in number of cows enrolled, was first again in 1949 with 411,566 cows. New York, with 287,044 cows, was second; Pennsylvania, with 233,311 cows, was third.

Calving Interval

Dairymen should strive for a 12-13 month calving interval in their herds in order to produce a maximum amount of milk and the maximum amount of calves with the least harmful effects on the herd. Those that extend the calving interval above 13 months will lose on a calendar year milk-production and reproduction basis for the herd as a whole, and if shorter calving intervals than 12 months are attempted, it is probable that the herd will be injured through a too rapid reproduction rate.

Courtesy Hoard's Dairyman

Bull's semen can be as effectively diluted for artificial insemination purposes by means of boiled filtered cow's milk as when more complicated buffer formulas are used. The dilution may be from one part of semen to two parts of milk up to one part of semen in 25 parts of milk. If stored at 32°F. to 36°F. sperm remains viable and potent for 120 to 160 hours.

Protein from Urea

Cattle will manufacture much of their own protein if they are fed substances containing urea, eliminating the need for expensive protein feeds, according to the University of California Extension Service.

Though not a protein, urea produces protein by fertilizing organisms in the rumen with nitrogen. Since urea is almost half nitrogen, one pound of it is equal to 2.62 lbs. of protein. It is inexpensive, too, costing only about 88 cents for 16 lbs.

Since it does not supply energy, urea must be mixed with feeds that do. It should be mixed thoroughly with the feed and distributed uniformly. Do not sprinkle urea over the hay or roughage. Molasses has been found to dissolve urea well and is the suggested carrier.

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