



Position of punch in relation to tooth.

force. The final repulsion is done by the operator pushing upon or tapping with the punch. If the horse is young and the tooth extremely long it may be necessary to cut off a portion of the tooth to prevent striking the opposite tooth.

After the tooth is removed, the alveolar cavity should be searched for remaining portions as well as for loose pieces of bone and infected granulations, all of which should be removed with a curette. During the operation the horse's head should be lower than the remainder of the body or a sack should be placed under the neck to prevent inhalation of exudate and blood.

#### Wound Treatment

The cavity should be packed with a roll of gauze. To secure the pack tie around its center a piece of umbilical tape, leaving the ends even so that both ends of tape may be carried up through the trephine opening. Another roll of gauze is then laid between the two ends of tape which emerge from the opening and is held in place by a knot tied in the tape. Such a dressing will prevent dirt entering the trephine opening and hay and grain entering the alveolus. During the first few days following the operation renew the dressing daily. New tape can be drawn in by tying the ends to the old before it is removed. After granulations have started the cavity may be permanently plugged with dental impression wax. Such a plug will remain in place until it is gradually displaced by the healing process, by which time the communication with the sinus will have been closed.

The trephine operation invariably, barring accidents, heals until it is hardly

noticeable and it is necessary then to merely return once a year to cut off the opposite tooth as it grows down into the vacant space.

#### REFERENCES

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2. H. E. Bemis, 1933, Veterinary Surgical Operations.
3. Veterinary Surgery Dept. Iowa State College, Manual of large animal surgery procedure.

—H. H. Rohwer, '43

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### Paraphimosis in Equine.

Paraphimosis is a condition in which the glans of the penis cannot be withdrawn into the prepuce. The condition is probably more common in the horse than any other domestic animal with the possible exception of the dog.

The causes of paraphimosis can be either inflammatory or non-inflammatory and may occur in animals debilitated by severe infections, febrile diseases, parasitisms, or influenza. Senility in stallions may be responsible for the condition, as may be paralysis of the retractor muscles following injuries of the posterior spinal cord. Tumor formation either of benign or malignant type may cause the penis to become too large to be withdrawn into the sheath. The most common cause is injury to the penis or preputial folds. Such injuries may be caused by false copulation in which the penis strikes the pelvis of the female, striking with a whip, or kicking.

#### Treatment

The most common method of treatment in the many cases which have been brought to the Iowa State Veterinary Clinic is amputation. In the case of stallions other treatments have been attempted but recovery is rather infrequent. Such treatment consists of wrapping the penis from the distal to the proximal end very tightly to reduce edema. The organ is subsequently bathed with hot or cold applications. In any event the penis should be supported by a sling to prevent further injury and edema. An edema of long

standing tends to become organized, causing an extreme thickening of the subcutaneous tissues leaving the penis permanently enlarged. Massage is also of some value, the penis being first covered with a protective oil or ointment.

Amputation has been the most common treatment and has also proved to be the most successful. Naturally it means the stallion will no longer be useful for stud purposes and should be castrated when his condition warrants such an operation. In case of the gelding, there are no marked detrimental effects.

To perform the operation in the clinic, the animal is placed on the operating table. In practice, however, the patient may be cast and restrained in the usual manner for castration. The penis and prepuce are thoroughly cleaned and a catheter is passed into the urethra to a point beyond the site of amputation. A tape should be tied around the distal end of the penis, which is extended by an assistant. A temporary elastic ligature is looped around the penis near the sheath to serve as a tourniquet.

A triangular incision about 4 cm. long and 3 cm. wide is made on the ventral surface just proximal to the line of amputation with the base of the triangle being forward. This incision is extended down to the urethra and the tissues dissected away carefully to not disturb the urethral wall. When this is completed, the urethra is incised longitudinally from the apex to the base of the triangle and a series of interrupted sutures are inserted in such a manner that they pass through the urethral wall and the skin. When these sutures are tied, the wound surface is completely hidden, and the urethral mucous membrane is brought into apposition with the skin. The catheter is then removed and the organ cut slightly oblique from below upward and forward. A straight needle with silk suture is passed through the margin of the corpus cavernosum, and across but not through the erectile tissue. It is then inserted into the superior portion of the fibrous capsule and carried out through the adjacent skin where the ends of the suture are brought together and tied. This procedure brings

the mucous membrane and skin into apposition. The blood vessels are thus securely closed in such a manner as to guard against hemorrhage. As many sutures are inserted as are required to securely close the wound and wholly cover every part with epithelium. By following this plan, stricture of the urethra in the process of healing is minimized.

Since the sutures will not completely control the hemorrhage, the tourniquet is left in place for two hours. It is then loosened and if any hemorrhage occurs it is again tightened until it will control the bleeding. Hemorrhage control in this region is very important in preventing tearing of sutures, which causes stricture of urethra after healing has taken place.

Generally no post-operative treatment is required. The animals are, however, kept under observation for two weeks so that any evidence of urethral stenosis will be observed.

—E. R. Henning, '43

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## EXERCISING COURT

THE facilities of the Stange Memorial Clinic were expanded recently by the addition of a small animal exercise court. Until this time the lack of adequate exercising room has been a serious handicap to the hospitalization of the small animals. Although four indoor exercise rooms have provided limited freedom for the patients, outdoor exercise, indicated in many cases, necessitated constant individual supervision for each animal.

The 37 x 25 foot court is enclosed by the clinic building and floored with concrete. The area is supplied with a water hydrant and central drainage so that the platform can be readily and easily scrubbed clean following use.

Because fencing material is not available during the present wartime emergency, the individual pens have not yet been constructed. At completion of the court there will be seven runs of equal size and two larger ones which will measure 25 x 5 feet and 32 x 5 feet, respectively.

—D. Wayne Pratt, '43