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Exostosis of the Mandible

R. M. Hacecky

Iowa State College

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CLINICAL MEDICINE

Exostosis of the Mandible. A four year old grey Arabian stallion was admitted to Stange Memorial Clinic, Oct. 4, 1948. The history submitted by the owner stated that the animal had a “lump” on the ventral surface of the left mandible. This “lump” was first noticed when the horse was a yearling and it had been increasing in size ever since.

Examination of the ventral surface of the left mandible revealed a hard spherical mass about 1¾ in. in diameter just anterior to the midpoint of that bone. A dental examination revealed that the condition was not a dental one. A diagnosis of an exostosis was made.

The stallion was placed in the stocks Oct. 6, and 60 Gms. of chloral hydrate was administered via stomach tube and pump. Ordinarily a horse of this size would receive a dose of 45 Gms., but since this animal was particularly excitable an additional 15 Gms. were given. He was then restrained on the operating table in a right recumbent position. The skin over the exostosis was shaved, defatted with ether, and painted with tincture of iodine. The skin and tissues around the base of the swelling were infiltrated with 2 percent procaine hydrochloride solution.

When anesthesia was complete, an elliptical incision was made through the skin over the exostosis. In making this incision, care was taken to leave enough skin to allow the edges of the wound to be brought into apposition during the suturing process. The soft tissues were dissected away from the bony growth and its pedunculated attachment to the mandible. This pedunculated attachment was about ¼ in. in diameter. A wire saw was then passed around the base of attachment to the mandible and the bony growth was removed. The exposed portion of the mandible was curetted and then cauterized with a hot iron to control hemorrhage. Sulfanilamide was placed in the wound and the skin was brought into apposition with a row of continuous sutures, using braided silk suture material. BIPP paste, composed of 1 part bismuth subnitrate, 2 parts iodoform, and petrolatum paste, was applied to the wound surface.

1,500 units of tetanus antitoxin were administered at this time subcutaneously in the neck region. Since the surgical wound made the animal more susceptible to attack and possible death by tetanus organisms, the antitoxin was given as a precautionary measure. The stallion was removed from the operating table and returned to his stall.

The following day BIPP paste was applied to the wound surface. There was no appreciable rise in temperature. The anterior half of the sutures were removed to facilitate drainage, Oct. 8. BIPP paste was again applied to the wound surface. The remainder of the sutures were removed Oct. 10. BIPP paste was applied to the wound daily until Oct. 14, at which time the BIPP was discontinued. On this date equal parts of boric acid and air slaked lime were applied and this therapy was continued until the animal was discharged.

The stallion was discharged Oct. 25, at which time complete healing had not yet taken place but was well advanced. The Veterinary Student
Occasionally growths of this type do recur. Since this growth was attached by only a small bony pedicel which was completely removed, recurrence of the growth in this case is doubted. There probably will result a very slight thickening of connective tissue at the site of the operation as a result of the healing process.

R. M. Hacecky, '50

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Sequestrum of the Mandible. The practice of equine dental surgery is done less and less each year with the passing of the draft horse. This practice should not be forgotten, because there are still many light horses, ponies and draft horses which from time to time will require dental care. These cases, though relatively few in number, may prove to be interesting to treat. An occasional case will present an interesting history and clinical picture as the following case report will illustrate.

A 6 year old Shetland pony was admitted to Stange Memorial Clinic, Sept. 14, 1948. The animal was thin, in poor condition and had a roughened hair coat. The owner complained the pony did not eat well and as a consequence had been losing weight for several weeks.

A closer examination revealed a swelling approximately 2 in. in diameter with an opening of a fistulous tract, on the ventral lateral aspect of the right mandible. An X-ray picture of this enlargement was made. The photograph revealed a sequestrum of the lower portion of the mandible with a fistulous tract extending dorsally to the second premolar. There was evidence of a mild alveolar periostitis of this tooth.

Sodium pentobarbital was administered via the jugular vein on Sept. 16, until surgical anesthesia was reached. The area over the swelling was shaved, defatted with ether and tincture of iodine was applied to the skin.

An incision was made through the skin on the lower aspect of the swelling. Blunt dissection was used to follow the course of the fistulous tract until the sequestrum of bone was reached. The sequestrum was removed and the fistulous tract dissected out until it reached the second premolar.

At this point an equine speculum was placed in the animal's mouth. The operator's hand was inserted into the oral cavity and the table surface of the second premolar was located. With this point for orientation, an area directly below the posterior border of the tooth and just above the ventral edge of the mandible was chosen for trephining. A chisel was used to make a hole in the lateral wall of the mandible at this point. A punch was inserted through the hole and the second premolar was repelled. The alveolar cavity was curetted immediately after removal of the tooth, and the wound was flushed with warm potassium permanganate, 1:3000, to remove bits of bone and tissue. Gauze packs saturated with equal parts of iodine and glycerine were placed in each opening.

The pony recovered uneventfully from the anesthetic. Every two days the iodine and glycerine packs were replaced by fresh packs. The wound on these days was flushed with potassium permanganate, 1:3000.

When the wound was being flushed prior to redressing on Sept. 29, a very fetid odor was noticed. This was probably due to some necrosing bone tissue as it persisted until Oct. 2.

The packs were removed and the wound was flushed for the last time on Oct. 4. A pack of dental impression wax was fashioned and placed in the alveolus. The opening on the lateral surface of the mandible was healing and appeared to be almost closed. Drainage from this area had almost ceased and on Oct. 8 the pony was discharged.

The cause of the sequestrum and fistulous tract is a matter of conjecture. No history could be obtained which would point to an injury of the mandible in this region, however an injury to the bone must have occurred. The fistulous tract could be due to the alveolar infection or the presence of the sequestrum.

A. Neuman, '49