1940

Dental Fistulae in Canine

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Recommended Citation

Grell, Hans A. (1940) "Dental Fistulae in Canine," Iowa State University Veterinarian: Vol. 3 : Iss. 1 , Article 4.
Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol3/iss1/4

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A DENTAL fistula may be defined as an abnormal passage leading down to the cavity of an alveolar abscess. Two such cases were observed this summer in the practice of Dr. John Spranklin, of Baltimore, Md. One occurred in a male shepherd dog, six years old, while the other was seen in a four year old, male, wire-hair terrier. Both fistulae had their openings a little below the inner canthus of the left eye with a purulent discharge that had the characteristic odor of dental caries.

The report of the shepherd dog will be given as typical of the two cases. The owner reported that two weeks previously the dog's head had been struck by a milk bottle falling from a table. At the time of examination there was a slight, malodorous discharge from the left nasal aperture. The patient had a temperature of 102.4°F, a pulse rate of 120, and was slightly depressed. A thin, purulent exudate was slowly escaping from the external opening, which was about 2 cm. in diameter, and running down over the maxillary region. The fistulous tract extended posteriorly beneath the lateral canthus of the eye for about 3 cm. before it entered the maxilla. The tract through the maxilla had a diameter of about 1 cm. Exudate in the maxillary sinus arose from a diseased condition of the roots of the upper fourth premolar tooth. The inflammation was eventually followed by absorption and a dental fistul formation due to degeneration and softening of bone tissue which permitted bulging and rupturing to occur from the pressure of the exudate behind it. Upon examination of the upper cheek teeth, the left fourth premolar was found to be infected. When tapped with a metallic instrument it gave a dull, dead sound, instead of the sharp solid sound of a healthy tooth.

Surgical treatment was indicated because no medicinal treatment is of avail in cases of exudate in the antrum. Where there is apical disease with a dental fistula, the tooth must be extracted.

The patient was given ¼ gr. of morphine sulfate intravenously to diminish the period of excitement and the amount of anesthetic required for complete anesthesia. An hour later enough Nembutal was given intravenously to obliterate the corneal reflex. The dog was strapped in position, with the back up and legs extended. A support was placed under the head thereby allowing free movements by the surgeon during the surgical procedure. The operative area beneath the eye was shaved, cleaned and Tr. of metaphen, an antiseptic, was applied. First the gingiva was loosened around the upper fourth premolar by inserting a sharp scalpel, between the gingiva and the tooth, down to the maxilla. After loosening the gingiva, a slow, steady, rocking, twisting pressure was applied to the tooth by means of dental forceps. When the tooth was felt to be yielding a straight downward pressure was exerted which removed it.

Examination of the roots of the tooth showed alveolar periostitis with two of the roots appearing dark gray in color. A small amount of the gingiva around the edge of the alveolar fossa was excised to prevent too rapid a closure which might obstruct drainage. The fistula and sinus were well irrigated with chlorazene (chloramine-T) solution before suturing the external wound with interrupted dermal sutures. Metaphen was then applied to the external wound and the edges of the gingiva. The fistula was irrigated daily with the chlorazene solution. No dressing was used on the external wound except metaphen. The patient was given 15 grains of sulfanilamide b.i.d. per os for 10 days. He showed remarkable improvement and was discharged on the twelfth day.