Surgical Correction of Complicated Buccal Food Impaction in a Four-Year Old Kurdish Ewe

Niloofer Seydi*, Ali Ghashghaii

Department of Clinical Sciences, Faculty of Veterinary Medicine, Razi University, Kermanshah, Iran.

Abstract

Case description- A four-year-old Kurdish ewe was referred to the Animal Clinic of Faculty of Veterinary Medicine of Razi University (Kermanshah, Iran) with cheek swallowing, infection wound and impaction of the food in right cheek for several weeks.

Clinical findings- Clinical examination revealed stretching and laxity of the cheek muscles with buccal food impaction and skin infection of this area because of previous unprofessional incision by her owner. No dental or other oral cavity abnormalities were observed on examination or palpation after manual expelling of the impacted feed and irrigation of the mouth cavity.

Treatment and outcome- After treatment of the animal by Intramuscular penicillin-streptomycin solution (20000 IU + 10 mg/kg bw) and flunixin meglumine (2 mg/kg bw) for three days; the defect was surgically repaired under sedation and local infiltration anesthesia. No post-surgical complications were encountered during three months post-surgery.

Clinical relevance- This report describes a complicated buccal food impaction in a ewe and some causes of this disorder and its surgical correction, which it may be the first written report in the sheep in Iran. It could be hypothesized that dietary causes, may be a contributing factor to the development of buccal food impaction in this case.

* Correspondence to: Niloofer Seydi, Department of Clinical Sciences, Faculty of Veterinary Medicine, Razi University, Kermanshah, Iran. E-mail: nseydi@razi.ac.ir
1. Case Description

A four-year old Kurdish ewe referred to the Animal clinic of Faculty of Veterinary Medicine of Razi University (Kermanshah, Iran) with a history of cheek swallowing, infection wound and impaction of food in right cheek for several weeks. On presentation, the patient was in a good body condition with the history of grazing on the stubble pasture during recent months.

2. Clinical Findings

Examination revealed stretching and laxity of the cheek muscles with buccal food impaction and skin infection of this area because of previous unprofessional incision and suture by her owner for relieving of the food impaction problem (Figures 1 and 2). No dental or other oral cavity abnormalities were observed on clinical examination following manual expelling of the impacted feed and irrigation of the mouth cavity. The clinical and laboratory parameters of the animal were in the normal range.

3. Treatment and Outcome

Because of the local infection, the animal was treated preoperatively for three days by Intramuscular penicillin-streptomycin solution (20000 IU + 10 mg/kg bw) and flunixin meglumine (2 mg/kg bw) and daily irrigation of the wound was done. Then she was subjected to the surgery. The animal was sedated by intravenous injection 0.1 mg/kg, xylazine HCl (Alfasan, Woerden, The Netherlands). The operation site was prepared surgically (povidone-iodine 10% solution for surrounding of the wound and 0.5% solution for the wound site) and the affected site was anesthetized using 10 ml of 1% lidocaine HCl infiltration (Shahid Ghazi, Tabriz, Iran). After surgical site preparation and draping, the wound was irrigated, and the skin was undermined from the underlying buccinator muscle. The underlying submucosa and buccinator muscle were sutured with size 2-0 polyglactin 910 (Pezeshkyaran, Tehran, Iran) in a simple continuous pattern in two separate layers. The skin was closed with nylon 0 (Pezeshkyaran, Tehran, Iran) in vertical mattress pattern. The ewe was discharged after surgery without any problems. Healing of the wound was desirable, and the ewe did not show any postoperative complication during three months post-surgery.

Figure 1. An unprofessional suture the cheek that had been done by the sheep owner.

Figure 2. Ewe with buccal food impaction in the right cheek and sign of partially cheek necrosis due to unprofessional suture by the sheep owner.

4. Clinical Relevance

Buccal food impaction commonly being referred to as "chipmunk cheeks". Although; it seemed to be not a rare condition in domestic animals such as sheep, but we found a few documents about it, in veterinary literatures. This condition has many causes such as; infectious or inflammatory origin, dental disease or misalignment, nutritional imbalance, or a congenital condition suggesting a potential hereditary component. It has been reported in horses in association with cheek tooth fracture. Among a
total of 60 maxillary and 17 mandibular idiopathic cheek
tooth fractures were diagnosed in 68 horses, buccal food
impaction was observed in 12% of cases, but other clinical
signs also were observed.\(^2\)

Doerr and Dieterich also reported that trauma, alveolar
abscesses, and periodontal disease are more likely causes
of mandibular lesions in Western Arctic Herd caribou and
increasing wear of the teeth may result in a higher
possibility of food impaction or gum abrasion and may
raise the chance of invasion by infectious organisms.\(^3\)

In the southeastern United States, sublingual food
impactions, which are unique to white-tailed deer, have
been reported only from areas where E. Schneider is
enzootic in whitetails. Food impaction could be due to
other causes that produce lesions in any cephalic structure
important in mastication.\(^4\)

Buccal food impaction has also been reported in white-
tailed deer and is proposed to begin with an irritation of the
oral tissues with material such as plant barbs or awns,
causing inflammation and pain in the mouth. This pain
may cause the animal to move its jaw less, allowing food
to accumulate within the cheek pouch.\(^5\)

Assessment of the teeth roots via radiography may have
been valuable for a complete examination, but was
unavailable in this case. It could be hypothesized that
dietary causes, such as long-fibered feed, including rough,
course forages, may be a contributing factor to the
development of buccal food impaction in this case. This
report that describes surgical correction of a complicated
buccal food impaction in ewe, may be the first written
report of surgically treated disorder in the sheep in Iran.

**Conflict of Interest**

The authors have no conflict of interest to declare.

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چکیده

اصلاح عارضه انباشتگی مواد غذایی در ناحیه گونه‌ای حفره دهانی به روش جراحی در یک رأس میش

چهار ساله نژاد کردی

نیلوفر صیدی، علی قشقایی
گروه علوم درمانگاهی، دانشکده دامپزشکی، دانشگاه رازی، کرمانشاه، ایران

توصیف بیمار- یک رأس میش چهار ساله نژاد کردی با نادرسپتوما، همراه با تجمع مواد غذایی در گونه سمت راست به کلینیک دانشکده دامپزشکی دانشگاه رازی (کرمانشاه، ایران) ارجاع یافت.

بیانات بالینی- این بیمار به دلیل دوختن توسط دام به صورت غیرحرکتی، همراه با تجمع مواد غذایی در گونه سمت راست به کلینیک دانشکده دامپزشکی دانشگاه رازی (کرمانشاه، ایران) ارجاع یافت.

بیانات پزشکی- درمان و نتیجه- پس از تزریق محلول پنسیلین-استروپنیسیم (۲۰۰۰ واحد بین المللی میلی‌گرم/کیلوگرم وزن بدن) و فلوئوکسین مکلوکسین (۳ میلی‌گرم/کیلوگرم وزن بدن) به همراه تزریق محلول استروپنیسیم (۰/۲٢٢ واحد بین المللی فرمول) و فلون‌کسین مکلوکسین (۰ میلی‌گرم/کیلوگرم وزن بدن) در حفره گونه نشانه‌های جراحی تأثیرگذاری در حفره گونه نشان داد. درمان آن را بر روی جراحی اصلاح شد. بعد از جراحی نبود جراحی عارضه در طول سه ماه پس از جراحی گزارش نشد.

کاربرد بالینی- این نتایج به خوبی از این نتایج به خوبی بیان می‌کند که ابتلا به عارضه انباشتگی مواد غذایی در ناحیه گونه‌ای حفره دهانی در یک رأس میش به علت همه‌پوشانی جراحی در این عارضه به مراتب کاهش یافت و درمان آن را بر روی جراحی اصلاح شد.

واژه‌های کلیدی- تجمع مواد غذایی گونه‌ای، صورت موش خرمایی، میش