ABSTRACT

A buffalo bull was presented to the college hospital with the complaint of the presence of a huge swelling. The animal had been infected with edematous skin disease for three months. The abscess was diagnosed as the presence of large swelling, exploratory puncture, radiographically and by ultrasonography. This huge abscess was removed by surgical excision under the effect of sedation and local analgesia. No postoperative complications were observed during a four-month follow up period. The abscess was successfully removed by surgical excision, which resulted in better aethesesis and an increase in the marketability of the animal.

Keywords: water buffalo, buffalo bull, *Bubalus bubalis*, abscess, edematous skin, corynebacterium

INTRODUCTION

An abscess is a localized suppurative inflammation limited by a wall of granulation tissue (Sasty and Rama, 2004). One of the most important causes of abscesses in Egyptian buffaloes is the lymphatic borne infection. Oedematous skin disease (OSD) is a widely distributed in Egyptian buffaloes and became endemic in Egypt (Selim, 2001). OSD is caused by *Corynebacterium pseudotuberculosis* and characterized by appearance of circumscribed nodules which gradually develop into closed abscesses containing bloody up to pus tinged with blood or pure creamy pus along the course of lymphatic vessels of the forelimbs, abdomen, and thigh (Sayed *et al*, 2007). In this paper, a huge abscess at an atypical site, i.e. lateral to the mandible of a buffalo bull, and its and successful treatment by surgical excision have been reported.

HISTORY AND CLINICAL SIGNS

A 1-year-old, male buffalo bull was admitted to the veterinary teaching hospital, Assiut University, for presence of a large swelling the size of a large water melon lateral to the right branch of mandible and decrease of appetite. The swelling was reported to have been present for more than three months. At this time, the limbs were edematous and the temperature was 40.5°C. The animal was treated by a local veterinarian using high dose of penicillin and streptomycin in addition to hydrocortisone, which led to disappearance of the edema from the limbs but the abscess continued to develop.

On admission the buffalo bull appeared in bad body condition with normal clinical parameters and the presence of a large, hot, painful,
fluctuating and sharply circumscribed swelling the size of large melon lateral to the right mandible branch (Figures 1 and 2). Aspiration revealed the presence of bloody pus with offensive odor (Figure 3). Ultrasonographic examination revealed the presence of hypoechoic fluid with hyperechoic dots in addition to a thick capsule (1.6:2 cm thickness) (Figure 4). Radiographic examination revealed the presence of radiopaque content (Figure 5). A sample of the aspirated exudate was sent to the lab for detection of the causative agent.

TREATMENT AND DISCUSSION

The abscess was removed by surgical excision under the effect of xylazine HCl 0.1 mg /Kg Bwt and local analgesia by lidocaine Hcl 2%. The bull was in recumbent position and the surgical area was prepared aseptically. An elliptical incision was made around the base of the abscess, the subcutaneous tissue and fascia were carefully dissected bluntly. The larger blood vessels were double ligated and severed while hemostasis of the small blood vessels was done by pressure or crushing using mosquito artery forceps. Then the abscess was removed and the subcutaneous tissue was sutured with 3-metric catgut in a simple continuous suture pattern. The skin was closed with silk in a simple interrupted suture pattern.

Postoperatively, ciprofloxacin and hydrocortisone were administrated. The skin sutures were removed after 10 days. The physical examination of the bull on the 10th and 30th days postoperatively revealed a healthy animal without any postoperative complications. The surgical correction resulted in a return to normal food intake and increase of body weight. Long-term follow-up obtained four months after surgery revealed a sound bull with good cosmetic appearance.

The weight of the abscess after removal was 5 kg while the volume of the bloody pus was 4100 ml (Figures 6 and 7).

The diameter of the wall was 1.5 cm on average (Figure 8). Laboratory diagnosis indicated that Corynebacterium pseudotuberculosis was the causative agent.

Buffaloes are more highly susceptible than cows for OSD, and the disease is more common in the age group of 8 months up to 3 years. Insects play a major role in transmission of the disease, so the disease is more prevalent during summer months in Egypt. The disease was diagnosed for first time in April 1960 (El-Sawalhy, 1999).

In the present case, recurrence was not reported. Total extirpation is possible if the abscess is accessible with a well developed capsule and no surrounding cellulites (Flower, 1998). It can be stated that the ultrasonographic examination offers an excellent method for measurement of the abscess capsule and the relationship with the surrounding tissues, which help the surgeon in detection of the preferred treatment technique.

REFERENCES

El-Sawalhy, A.A. 1999. Veterinary Infectious Diseases, 2nd ed. ZAFER office, Zagazig, Egypt.


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The occurrence of hydatidosis in the liver of buffaloes was noticed in six cases, which constituted about 1.19% incidence in the total examined animals. Similar findings were reported by Tavasoli (1996) with a 1.54% incidence rate. This finding was not much lower. Hassieb et al. (1995) reported a much lower incidence rate—only 0.16%. During the present study, such cases were mostly seen in abattoir animals having poor conditions, and therefore, malnutrition might have a significant role to play in hydatidosis. Husain et al. (1992) reported the highest incidence of hydatidosis ranging from 9.8%–34.88%.

REFERENCES


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