Ulcerative Balanitis in a Bull

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Rec. Date: Jan 12, 2014 00:46
Accept Date: Apr 05, 2014 12:37

Abstract
A three year old cross breed Brahman bull weighing 450kg was presented to the large animal unit of Universiti Putra Malaysia Veterinary Hospital with swollen and protruding penis. Physical examination of the penis revealed an inflamed glans penis (balanitis). The condition was effectively managed with the administration of flunixine meglumine an anti-inflammatory agent and long acting penicillin injection until complete healing ensured. Therefore, it is pertinent that prompt and timely intervention of such condition is important in order to avoid prolonged prolapse of the glans penis, which will result in excessive swelling, ischemia, necrosis and permanent fibrous adhesions of the penis to the prepuce.

Key words: Bull, Balanitis, Inflammation, Penis

Introduction
Balanitis is defined as the inflammation of the glans penis; it is often associated with inflammation of the prepuce (balanoposthitis). Balanitis and balanoposthitis can be infectious or non-infectious in origin. Infectious causes include viruses such as herpesvirus and bacteria such as Corynebacterium renale and Haemophilus somnus (Maxie, 2007; McEntee, 2012). This condition when left unaddressed is highly detrimental to their reproductive health of domestic animals, and may cause complications that will result to infertility due to inability of mounting, intromission and ejaculation by the male (Hopkins, 2006).

Case History
A 450kg cross breed Brahman bull was presented to the large animal unit of Veterinary Hospital Universiti Putra Malaysia with a complaint of a swollen glans penis which failed to be retracted into the prepuce. The condition existed for six weeks and the farmer treated the bull only with a topical insect repellant spray (Woundsarex® spray).

Physical Examination
The bull was bright and alert on the day of presentation at the Veterinary Hospital. The temperature, pulse rate and respiratory rate were within the normal ranges. Close examination of the penis revealed an injury...
at the tip of the glans penis. The glans penis was swollen and protruded from the prepuce with necrotic tissue associated with mild to moderate scarification (Fig. 1)

**Treatment**

The bull was physically restrained and the glans penis was first washed with clean water to remove dirt and tissue debris on the wound surface. Diluted hibiscrub (chlohexidine gluconate) was then used to scrub the wound area followed by the application of povidone iodine (Fig.2). 10ml of Dexamethasone (2mg/ml) an anti-inflammatory agent was administered intramuscularly for three consecutive days. 10 ml of Flunixine meglumine (1.1mg/kg), a non-steroidal anti-inflammatory, analgesic and antipyretic drug was also administered intramuscularly for four days to relief pain. Antibiotic treatment using long acting penicillin injection (Benacilin® 20,000IU/kg) was administered once at the dose rate of 1ml/25kg body weight. The swollen glans penis subsided by almost 50% three days post treatment (Fig.3).

**Follow-up**

At the end of the treatment regimen, the bull was able to retract its penis and urinate indicating that the urethra was patent.

**Discussion**

Cases of non-infectious balanitis are common in domestic animals and they are usually predisposed to injury acquired during mounting or contact with sharp objects from the environment. Balanitis is not very common in the bull and when seen, it is usually accompanied by inflammation of the prepuce; balanoposthitis (Foster, 2012). In the present case, the injury could have been due to sharp piecing
objects, kicking by cows during mating or false intromission especially in bulls that lack mating experience. Viral infection due to bovine herpes virus I can cause ulcerative inflammation of the penis and prepuce accompanied by an initial period of pyrexia. Secondary bacterial infection of the ulcers will then result in severe purulent balanoposthitis causing a considerable discomfort to the bull. Complete resolution is usually seen after two weeks without intervention (Hopkins, 2006; Maxie, 2007). However, in this case, the temperature was normal, thus ruling out the possibility of bacteremia and pyrexia. The present case nonetheless referred late to the Veterinary hospital but it was successfully managed with the combined administration of flunixin meglumine and long acting penicillin injection. The condition may result in suppuration and gangrene formation if left untreated. Therefore, the bull will exhibit unwillingness to mate and lack of libido due to the intense pain. In addition, injury to the urethral process will result in stenosis of the urethra and the inability to urinate which may lead to the retention of urine within the preputial cavity and favor bacterial growth (Foster, 2012). All cases of balanitis must be identified and treated promptly in the farm as delay in treatment may lead to severe complications that might be irreversible and economically detrimental to the farmers.

References