

*Case Report*

**SUCCESSFUL MANAGEMENT OF SECOND DEGREE BURNS IN A  
CROSS BRED COW: A CASE REPORT**

**R Mahesh<sup>\*</sup>, K Jaya Kiran, G Kamalakar and MV Jagadeesh**

Department of Veterinary Surgery and Radiology

College of Veterinary Science: Proddatur

Sri Venkateswara Veterinary University, Andhra Pradesh-516 360

E-mail: mahivet04@gmail.com (\**Corresponding Author*)

**Abstract:** This paper reports a case of second degree burns in a crossbred Holstein Friesian cow and its management by fluid therapy, broad spectrum antibiotics, NSAIDS and 1% Silver sulfadiazine cream without any complications.

**Keywords:** Burns, Holstein Friesian, 1% silver sulfadiazine cream.

### **Introduction**

Burn is an injury caused by hot solids and flame. These wounds occur when heat energy is applied at faster rate than tissue can absorb and dissipate (Fossum, 2013). Burns are uncommon in ruminants but may occur due to a variety of household items including electrical equipment, chemicals and heat etc (Pavletic and Trout, 2006). Usually burns occur in animals when a building catches fire in which the animals are housed (Tyagi and Singh, 2010). This present paper communicates successful management of second degree burns in a cross bred cow.

### **Case History and Observations**

A crossbred Holstein friesian cow presented to the veterinary dispensary, Hukumpeta, Visakhapatnam with a history of fire accident to the thatched house at which the animal was housed in the early hours of the morning. At the time of presentation the animal was in apathy condition with temperature 102.6°F, respiratory rate 32/min, pulse 65/min and capillary refill time is greater than 2 sec.

On clinical examination wounds were observed on the right side of the thorax, abdomen, fore and hind limbs with vesicles (Fig: 1) and seems to be extended only to skin layers.

### **Treatment and Discussion**

As a first aid treatment the owner was advised by phone call to lavage the burn wounds with cold water to limit further extension of tissue destruction. As exudation of plasma is

*Received April 14, 2016 \* Published June 2, 2016 \* www.ijset.net*

common in burn wounds the animal was administered with Ringers lactate 4lits, DNS 3 lits for five days to prevent the shock. The wounds were smeared with 1% Silver sulfadiazine until complete healing as it has broad spectrum activity against most of the bacteria, fungi and ability to penetrate necrotic tissue. It was administered with Inj. Ketoprofen 15ml and Ceftriaxone 3g for 5 days to reduce pain and control infection respectively. From 3<sup>rd</sup> day onwards the animal was active and taking feed and water normally. From the 5<sup>th</sup> day onwards the burn areas of the skin started becoming hard, then dark in color and finally sloughed away. Healing of the wound was evidenced by sloughing of the necrotic skin layers that was observed by 17<sup>th</sup> day (Fig: 2). More than 60% of healing was observed on 82<sup>nd</sup> day (Fig: 3). Almost complete healing (>95%) of the wound was observed on 115<sup>th</sup> day (Fig: 4).

### **Summary**

A case of second degree burns in a crossbred Holstein Friesian cow was presented and successfully treated with fluid therapy, 1% Silver sulfadiazine cream, broad spectrum antibiotics and NSAIDS.

### **References**

- [1] Fossum TW (2013). Surgery of the Genital and Reproductive systems, in Small Animal Surgery, In Fossum TW (eds.) 4th Edn, Elsevier Mosby, Philadelphia. pp: 132-134.
- [2] Pavletic MM and Trout NJ, 2006. Bullet. Bite and burn wounds in dogs and cats. Vet.Clin.North Am.Small Anim. Pract., 36:873-893.
- [3] Tyagi R.P.S and J. Singh. 2010. Ruminant Surgery. IN: The Digestive system, India, pp.221-223.



**Fig 1.** Photograph showing burns at the time of presentation



**Fig 2.** Photograph showing sloughing of the skin on 17<sup>th</sup> day



**Fig 3.** Photograph showing burns on 82<sup>nd</sup> day



**Fig 4.** Photograph showing burns on 115<sup>th</sup> day