

## CASE REPORT

## Clinical management of chronic abscess in an Asian elephant (*Elephas maximus*)

Kadirvelu Senthilkumar\*, Alagumalai Senthilkumar<sup>1</sup> and Madurai Ganesan Jayathangaraj

Department of Wildlife Science, Madras Veterinary College, Chennai, Tamil Nadu, INDIA.

<sup>1</sup>Farmers Training Centre, Theni, Tamil Nadu, INDIA.

\*Corresponding author's e-mail: [drksenthilkumar@tanuvas.org.in](mailto:drksenthilkumar@tanuvas.org.in)

### ABSTRACT

Regional perfusion with Triple sulpha was used to treat a severe abscess in a 7-year old female Asian elephant (*Elephas maximus*) housed at a temple in Tamil Nadu, India. The cow elephant was presented with an acute swelling at left shoulder that persisted despite 4 days of anti-inflammatory therapy. There was a 3-cm-deep, 5-cm-diameter abscess pocket that was subsequently debrided. Regional perfusion was performed by using 7% Tincture iodine for 15 days, and Triple sulpha in the wound pocket. Besides, the elephant received Enrofloxacin (dosed at 10 mg/kg b.wt.) and Meloxicam (dosed at 0.2 mg/kg b.wt.) intramuscularly. Within 2 days of administering the first perfusion, the swelling reduced dramatically. After 7 days of successive treatment, the elephant showed marked improvement. The affected skin area became normal after 60 days post-treatment.

### Keywords:

Chronic abscess, clinical management, *Elephas maximus*

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### INTRODUCTION

The skin of an Asian elephant (*Elephas maximus*) is very thick measuring about 2.5-5.0 cm (Sukklad et al., 2006). In wild conditions, elephants make use of mud and slush to cover skin for the retention of moisture and

protection from UV-rays. The elephant's skin lacks sebaceous glands. These anatomical factors may interfere with wound healing (Sukumar, 2003). Pachyderms are commonly encountered with traumatic injuries resulting in a variety of superficial and deep wounds. In general, abscesses may occur in all parts of the body in elephants and may become chronic, if not attended in time (Ollivet-Courtois et al., 2003). Latent period of development of abscess varied from weeks to months (Schmidt, 1986). Here, we described a case of chronic abscessation and its successful clinical management in an Asian elephant.

### CASE HISTORY & OBSERVATIONS

A 7-year old female Asian elephant (*E. maximus*) weighing 750 kg was referred to the Department of Wildlife Science, Madras Veterinary College, Chennai with a history of chronic abscess at the left shoulder region. Clinical examination revealed oozing of thick and mild yellowish purulent materials from the affected part. The wound was found contaminated with sand and dirt. The elephant was found as active having normal range in body temperature, respiratory and pulse rates. The mucous membrane was slightly congested. The cotton swab collected from the pus of the wound was positive for the presence of *Staphylococcus sp.*

### CLINICAL MANAGEMENT & DISCUSSION

The wound was first cleaned with H<sub>2</sub>O<sub>2</sub> solution in a routine manner, and the accumulated tissue debris was removed using sterile swabs. Subsequently, the wound

was cleaned using 7% Tincture iodine. The cotton swab soaked in Tincture iodine was kept inside the wound to remove the remnants of exudates completely. The pus collected on cotton swab was burnt to prevent the accumulation of bacteria in the facilities (Toit, 2001; Firgal and Naureen, 2007).

The wound was packed with Triple sulpha powder (Ferrous sulphate + Copper sulphate + Zinc sulphate in the ratio of 1:1:1). Besides, the animal was treated with Enrofloxacin injection (10 mg/kg b.wt.), and Meloxicam injection (0.2 mg/kg b.wt.) intramuscularly for 15 days. Tetanus toxoid (5 mL) injection was given intramuscularly as a single dose. The administration of tetanus toxoid in elephant was done in accordance with the recommendations of Fowler and Mikota (2006) who recommended the administration of tetanus toxoid in elephants with deeper wounds. The elephant showed marked improvement after 7 days of successive treatment. The affected area in the skin became normal after 60 days post-treatment.

The abscess might have been caused by hitting against sharp objects during transportation or cuts from chains, ropes, etc., and even a wire as foreign body could end up in the development of abscess related problem, as stated by Ollivet-Courtois et al. (2003). Surgical treatment in elephant is limited owing to the fact that the post-operative care in elephants is difficult. Fowler and Mikota (2006) stated that suturing is not generally practiced for elephant, as wound dehiscence is common in elephants. On the other hand, wound healing is prolonged in elephants, which is mainly due to its thick dermis layer as well as pyogenic membrane of the skin. Moreover, healing of wound is highly dependent on several factors such as wound manage-

ment, type of wound, environment, site of wound, and nutritional status of the animal (Sukklad et al., 2006).

## CONCLUSION

A case of chronic abscess in an Asian elephant (*E. maximus*) was diagnosed and successfully managed by medical approach using Triple sulpha.

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