

SUCCESSFUL MANAGEMENT OF A VIOLENT ASIAN ELEPHANT IN MUSTH UNDER XYLAZINE ANAESTHESIA

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ABSTRACT

Successful management of a violent male Asian elephant (*Elephas maximus*) in musth was carried out using 700 mg Xylazine HCl to obtain desired standing anaesthesia. The legs of elephant were tied with chains and tethered by using special jute rope to prevent his movement until the musth period was over. In brief, better awareness of people on physiological behaviour of elephants for detection of musth as well as to adopt appropriate management procedures is referred.

Keywords: Anaesthesia, Elephant, Management, Musth, Xylazine

INTRODUCTION

Musth is similar to rutting behaviour in ungulates and is associated with periodic increases of testosterone secretion. Most matings occur in this period (Poole, 1989). During musth, the animal becomes more restless, energetic, aggressive and generally irritable and oversensitive to sound and movements. Musth is generally a normal phenomenon but it becomes dangerous in case of man-elephant interactions (Rajaraman, 2006). During musth, the elephants are uncontrollable and become a risk to human life and property. Therefore, this condition needs immediate veterinary interventions for its better management.

CASE HISTORY AND OBSERVATIONS

A male Asian elephant of (Age, 40 yr; b. wt. 4000 kg) was reported as violent and destructive in Tekang village, East Siang district of Arunachal Pradesh. The owner reported that elephant injured his *mahout* and was on the run of 21 days destroying and damaging houses in villages. Also, the elephant charged to everyone as soon as he got the smell of any nearby human. The owner approached the local forest

department for veterinary interventions. The elephant was detected to be in musth on the basis of clinical signs. It was finally decided to chemically restrain the elephant and to tie his legs with chains to restrict the movements until the musth period is over.

A total volume of 7 ml or 700 mg Xylazine HCl was loaded in a metal dart and projected through Dist-inject N 60 rifle to the rump region. As the elephant had the tendency to charge everyone, we had to fire a gun shot in air simultaneously with firing the dart so as to safeguard ourselves and to deter the attention of elephant from charging. After the dart injection, the visual contact was lost as the site was in deep forest. The elephant was found with the signs of anaesthesia after 15 minutes of dart injection about 200 meter away from the site of darting. The legs of elephant were tied with metal chains and tethered him in a nearer tree to restrict his movement until the musth period is over. The elephant was in constant watch till recovered from the standing anaesthesia.

TREATMENT AND DISCUSSION

Xylazine HCl is extensively used in elephants as a popular sedative because of its high therapeutic index, smooth induction and recoveries (Sarma and Pathak, 2001). The use of Xylazine @ 0.1-0.2 mg/kg b.

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wt. is recommended for sedation in Asian elephants. However, in extreme aggressiveness, musth, painful conditions and ambient disturbances may necessitate higher doses (Cheeran *et al.*, 2002). After 15 minutes of the dart injection, the elephant manifested with signs of standing anaesthesia. After 20 minutes, complete standing anaesthesia was achieved and the signs of anaesthesia were recorded as diminished trunk, tail, restricted ear movement and relaxation of penis with dribbling of urine and loud breathing sound.

Once the musth elephant was completely sedated, all the legs were tied with chains and tethered with special jute rope to a nearer big tree for restricting his movements as reported earlier (Nigam *et al.*, 2006). The anaesthesia lasted up to 3.5 h which was similar with the findings of others (Ahmed *et al.*, 2017). The *mahout* was advised to keep constant watch on the elephant and not to remove the chains until the musth period is over. He was also instructed to provide reduced feed, sufficient clean water and to observe for any behavioral change. After 12 days, the elephant became uneventfully normal and with veterinarian instruction the chains were removed.

Musth appears to be similar to rutting behaviour which is associated with periodic increase secretion of testosterone. As it a normal physiological phenomenon among physically healthy bulls, it does not need any treatment. Musth is an emergency condition and might be the important cause for man-elephant conflicts as reported in the present case. Therefore, it needs special management which included chaining the animal away from contact with people and other elephants and withdrawal of feed to reduce the musth period by deteriorating physical health.

In the present case, chemical restraining and securing of musth elephant is adopted as the elephant became a threat to human life. This paper elaborates a successful chemical restraining of a violent elephant with Xylazine HCl anaesthesia in musth. We refer better awareness of people on physiological behavior of elephants for detection of musth as well as to adopt appropriate management procedures.

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