Treatment of Traumatic Myiasis of Indian Lion (*Panthera leo*) at Chittagong Zoo

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Maggot infestation, is a condition, in which fly maggots feed off, and develop in the tissues of living organisms. The study was the effective treatment of Traumatic myiasis of Indian lion conducted in Chittagong zoo.

The animal was anesthetized with combination of xylazine and ketamine, and was positioned on left lateral recumbent position. Maggots were removed by forceps followed by dressing with oil of turpentine. Dressing was done in each three days interval till 12 days after the animal was being kept and restrained in a small case without anesthesia. Complete healing was observed after two weeks.

Fig 1. Fly larvae of wound

Fig 2. Dressing with Hydrogen peroxide

Introduction

Traumatic myiasis, caused generally by blow flies larvae (Anderson *et al.* 2004), that feed and develop in the cutaneous tissues of host, and create injury to host tissue (Hall *et al.*1995). They are found more frequently in different animals including both the captive and free ranging wild animals (Wieckowski *et al*. 2009) and leads to loss of wild fauna (Devrajani *et al.* 2010). It has been proven that, ivermectin is a highly effective medicine for domestic animal but information also is available about its efficacy and safety in wild species (Kumar and Raj 2012). This study was designed to observe an effective and rapid treatment of maggot wound of the Indian lion at Chittagong zoo.

Materials and Methods

An 8 year old Indian female lion was injured at the upper portion of right shoulder as a result of fighting with other lions in captive condition at Chittagong Zoo.

Restraining and anesthesia

The animal was chemically restrained with ketamine and xylazine of @5mg/kg and xylazine @2mg/kg bodyweight respectively. After being anaesthetized, the animal was secured and covered with thick cloth on face.

Treatment procedure

Animal was situated on left lateral recumbent position so that the wound could be placed on the upper side. Shaving was done at

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Fig 3. Wound after dressing

surrounding area of wound. Loosely attached maggots were removed manually by forceps (Fig.1) and the remaining deep maggots were removed when they came out after probing gauge, soaked with oil of turpentine (Fig.2). After that, hydrogen per oxide (H_2O_2) for digestion of the death tissue debris within the wound and easily removed by washing with saline water (Fig.3).

Finally, Ivermectin was given s/c @ 0.2 mg/kg body weight and the wound was dressed in three days interval with iodine preparation after the animal was transferred to a small separate iron cage.

Result and Discussion

After two weeks, the wound healed and no maggots were observed in the injured area. The animal came back to its normal behaviour.

This has proved to an efficient treatment procedure for myiasis in captive lion. It is noticeable that, proper care should be taken to prevent the further injury during restraining and the animal should be in close observation until full recovery.

References

Anderson, G.S. and N.R. Huitson (2004). Myiasis in pet animals in British Columbia: the potential of forensic entomology for determining duration of possible neglect. *Can Vet J*, 4: 993–998.

Devrajani, K., M. Abubakar, S.A. Fazlani, F. Shahid, Q.A. Shah, and I. Rashid (2010). Occurrence and Prevalence of Bacterial Species as Identified from Camel Wounds. *IJAVMS*, 4(4): 96-104.

Hall, M.J.R., R. Farkas, F. Kelemen, M. Hosier and J.M. El-Khoga (1995). Orientation of agents of wound myiasis to hosts and artificial stimuli in Hungary. *Medi and Vet Ento*, 9: 77–84.

Kumar, V. and A. Raj (2012). Management of wound myiasis in a lion (Panthera leo), *IJAVMS*, 6(1): 4-6.

Wieckowski, T., G. Wibbelt, P. Kretschmar, H. Hofer, S. Seet (2009). Feline miliary dermatitis in captive African lion (Panthera leo). *Proceedings of the International Conference on Diseases of Zoo and Wild Animals*, Beekse Bergen, 346-348.