

CLINICAL MANAGEMENT OF TRAUMATIC WOUND WITH MAGGOTS ON THE HEAD OF A DOG

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An eight years old male dog weighing 20 kg was presented in the Division of Animal Health, ICAR, Umiam (Meghalaya) with a history of being bitten by another dog while fighting. Clinical examination revealed extensive wound with maggots on the head. Successful treatment of traumatic wound with maggots on the head was attempted after debrimentation and removal of the maggots from the wound by applying Turpentine oil in the wound and simultaneously injecting Ivermectin @ 0.3mg/kg body weight subcutaneously followed by general wound care management which includes broad spectrum antibiotic therapy (Ceftriaxone @ 25mg/kg body weight), Meloxicam injection, topical antiseptic dressing with povidone iodine solution and topical application of fly repellent.

Keywords: Dog, Head, Maggots, Traumatic wound.

Traumatic wounds are typically defined as cuts, lacerations or puncture wounds which have caused damage to both the skin and underlying tissues. Although head trauma occurs less commonly in dog due to the thicker skull with more muscle mass however it is a very serious condition. Traumatic wound on head can result from a variety of injuries in dogs as biting by another dog while fighting is a common cause of head injury in dog. In fact, bite wounds are one of the most common reasons for hospitalization of dogs and cats in veterinary clinics (Holt and Griffin, 2000 and Kelly *et al.*, 1992). Fly species that normally breed in meat or carrion can become attracted to necrotic tissue odors and colonize pre-existing wounds resulting in a type of facultative cutaneous myiasis, often called wound myiasis (Day *et al.*, 2000). Left untreated, maggot wounds are fatal as the animal may die due to the maggots tunnelling into their brain or vital organs (depending on the site of the wound), blood loss or secondary infections.

Case History and Observations

In Ri-Bhoi district Meghalaya, a case of head injury in an eight years old male dog weighing 20 kg was presented with a history of severely bitten by another dog, while fighting, which resulted in open wound on the head. The wound was further aggravated by scratching and shaking of the head. The dog

became weak and developed anorexia due to the apparent pain caused by the injury. On examination, the respiration and pulse rate were within the normal range while the body temperature was higher (103⁰ F) than the normal range. Maggots were also seen in the wound. However, the skull was found to be intact and no neurological symptom was observed. So the case was tentatively diagnosed as traumatic wound on the head with maggots and treatment was aimed at the maggotted wound and prevention of the secondary brain injury.

Treatment

The initial treatment was started by removing the dead tissues and maggots from the wound. The wound was first cleaned with normal saline solution and dead tissues were removed manually using a pair of artery forceps. To kill the deeply burrowed maggots, cotton balls soaked in turpentine oil were inserted directly into the wound for 30 minutes. Then after removing the cotton balls, the dead maggots were removed mechanically. Ivermectin was injected subcutaneously @ 0.3 mg/kg body weight to kill deep seated maggots. The wound was cleaned with povidone iodine solution three times daily to maintain aseptic condition and fly repellent was applied to prevent from flies. Systemic broad spectrum antibiotic Ceftriaxone @ 25mg/kg body weight was given intramuscularly for 5 days to combat

bacterial infection and NSAID, Meloxicam was injected intramuscularly @ 2ml for 5 days to relieve pain and inflammation. A pet cone made from plastic was applied on the neck to prevent scratching of the head. Liver tonic syrup @ 5ml twice daily orally was

given as supportive treatment to improve the appetite of the dog during the treatment. The wound was left open and regularly cleaned with antiseptic solution and topical gel was applied till the wound dried up.



Fig 1 : Wound on the head (before treatment)



Fig 2 : Wound completely healed after treatment

Results and Discussion

In 20 days the wound was dried up and healed completely. Generally, the maggot wounds are treated by removing maggots mechanically or by application of wound cleansing agents and/or a combination of both followed by general wound management as also recommended by Malik *et al.*, (2014). In our case, turpentine oil application into the wound followed with Ivermectin injection s/c were given to kill both the deeply burrowed maggots as well as freshly hatched larva from the eggs. As bacterial infection can delay wound healing. A course of broad spectrum systemic antibiotic therapy along with topical antiseptic (povidone iodine) application were also done to combat bacterial infection and to hasten healing process. NSAID injection i/m for 4 days was also provided for relieving pain. Fly repellent ointment was used several times a day as per need to keep the wound safe from maggot re-infestation. The dog recovered from the traumatic wound eventually.

Conclusions

Successful management of traumatic wound with maggots on the head of a dog is

possible with proper treatment protocol and utmost care with adequate management.

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