

MANAGEMENT OF SUBCUTANEOUS EMPHYSEMA IN A HORSE

Mir Aamir Ali¹ and H.S. Mahesha²

Bangalore Turf Club Limited, Racecourse road, Bangalore.

ABSTRACT

A kathiawari horse aged three years was presented with swelling throughout the body. Clinical examination revealed a penetrating wound in the axillary region with subcutaneous emphysema. The wound was closed with antibiotic impregnated gauze with minimal debridement an uneventful recovery occurred.

Keywords: Axillary wound, subcutaneous emphysema

INTRODUCTION

Axillary wounds are caused by penetration of a sharp object like trees, fences, gates and usually do not involve the thorax (Lavery *et.al.*, 1996). Marked subcutaneous emphysema develops because the wound tissue becomes a one way channel for air and as the horse moves the air progressively accumulates in soft tissues. The trapped air may migrate through fascial planes with potential to cause pneumothorax, (Hance *et.al.*, 1992).

CASE HISTORY AND TREATMENT

A kathiawari horse aged about 3 years was presented with a complaint of swelling throughout

¹Assistant Veterinary Officer, ²Veterinary officer, Bangalore Turf Club Limited, No.52, Racecourse road, Bangalore.

the body and also involving the face. Clinical examination revealed a penetrated wound in the maxillary region with diffuse accumulation of air with crepitation and the skin pitting on pressure, with congested mucus membranes and anorexia were the other associated symptoms. The wound was cleaned with normal saline and the wound was closed with antibiotic ointment and sterile guaze. Fig. (1 and 2).



Fig.1. Diffusely swollen head and body



Fig. 2. Penetrating wound in the axilla

Tetanus toxoid was given initially and gentamicin was given intravenous at 6.6mg per Kg body weight once daily along with metronidazole at 25mg per Kg orally four times daily and penicillin sodium at 22000 I.U. per Kg body weight intravenously twice daily. Phenyl butazone was given at the dose rate of 2.2 mg per Kg intravenously once daily was administered for ten days.

RESULT AND DISCUSSION

The clinical symptoms as observed in the current case were also reported by Laverty *et.al.*, (1996), Hassle (2007). Axillary wounds were found associated with subcutaneous emphysema and predisposing to pneumothorax that was not observed in this case. Stall rest was advised to avoid

further accumulation of air and continued until recovery. Surgical closure of the wound was not considered as reported by Marble *et.al.*, (1996), Joellugo (2006) and Florent David *et.al.*, (2008). Antibiotic impregnated gauze was well tolerated by the horse and following which the horse recovered without any respiratory complication.

REFERENCES

- Florent David and Sheila Laverty, 2008. Thoracic Trauma. In: Five minute Veterinary Consult Equine, Jean pierre Lavoie and Kenneth Hinchcliff (Ed. 2), Elsevier., pp.756-757.
- Hance, S.R and Robertson, J.T. 1992. Subcutaneous Emphysema from an axillary wound that resulted in pneumomediastinum and bilateral pneumothorax in a horse. *J. Am. Vet. Med. Assoc.*, 200:pp.1107.
- Hassel, D.M. 2007. Thoracic Trauma in horses. *Vet. Clin. Equine.*, 23:67-80.
- Joel Lugo. 2006. Thoracic disorders. In Equine Surgery Auer and Stick (Ed. 3), Saunders Elsevier St. Louis USA., pp. 620-621.
- Laverty, S., Lavoie, J. P., Pascoe, J.R and Ducharme, N. 1996. Penetrating wounds of the thorax in horse. *Equine. Vet. J.*, 28:pp.220.
- Marble, S.L., Edens, L.M and Shiroma, J.T. 1996. Subcutaneous emphysema in a neonatal foal. *J. Am. Vet. Med. Assoc.* 208:pp.97.

BEST SCIENTIFIC PAPER AWARD OF INDIAN VETERINARY ASSOCIATION, KERALA

Indian Veterinary Association, Kerala has decided to give best scientific paper awards annually for the best papers published in Journal of Indian Veterinary Association, Kerala from the year 2012. The awards will be for a best Clinical paper and a best Research paper. The award consists of a citation and a cash award which will be distributed in the Veterinarians Annual Convention.