



Management of Thrush in Three Horses

J. Khurma, P. Bishnoi and T.K. Gahlot

Department of Veterinary Surgery and Radiology, College of Veterinary and Animal Science, Rajasthan University of Veterinary and Animal Sciences, 334001 Bikaner, India

Key words: Clinical examination, foul smelling, haematological, neutrophils, thrush, triple sulphate

Corresponding Author:

J. Khurma

Department of Veterinary Surgery and Radiology, College of Veterinary and Animal Science, Rajasthan University of Veterinary and Animal Sciences, 334001 Bikaner, India

Page No.: 6-8

Volume: 9, Issue 2, 2016

ISSN: 1993-5412

Veterinary Research

Copy Right: Medwell Publications

Abstract: Three horses aged 12, 10 and 7 years were presented at Department of Veterinary Surgery and Radiology, CVAS, RAJUVAS, Bikaner with a history of mild lameness and black colour discharge from the solar surface of right hind foot, right fore foot and left fore foot, respectively. Clinical approach included history, clinical examination, haematological examination and management along with supportive medication. Clinical examination revealed blackish, foul smelling and degenerative frog and mild lameness. Haematological examination revealed increase in the value of neutrophils in all the cases.

INTRODUCTION

Thrush is a degenerative condition of the frog involving the central and lateral sulci which is characterized by the presence of black necrotic exudate (Stashak, 2002). This discharge which varies in quantity, usually has a very offensive odor (Parks, 1998). The hindlimbs are most frequently involved (Reeves *et al.*, 1989). In severe cases the infection may undermine the sole and result in swelling of the distal limb (cellulitis) and lameness (Reeves *et al.*, 1989). Contributing factors for thrush are wet, unhygienic stable conditions, especially when horses stand in urine and manure soiled bedding, neglect of daily foot care, and lack of exercise (Stashak, 2002). Horses with contracted heels can be prone to thrush because their hoof conformation narrows the sulci so dirt and manure aren't as easily dislodged (Stewart, 2003). Daily hoof picking to clean out sulci and regular exercise that contributes to overall hoof quality by

increasing circulation help in prevention of thrush (Stewart, 2003). The diagnosis is usually based the presence of black, odiferous discharge in the sulci of the frog together with the loss of the frog (Stashak, 2002). Present case report described management of thrush in 3 horses.

Three horses aged 12, 10 and 7 years were presented at Department of Veterinary Surgery and Radiology, CVAS, RAJUVAS, Bikaner with a history of mild lameness and black colour discharge from the solar surface of right hind foot, right fore foot and left fore foot, respectively. Clinical approach included history, clinical examination, haematological examination and management along with supportive medication. Clinical examination revealed blackish, foul smelling and degenerative frog (Fig. 1) and mild lameness. Haematological examination revealed increase in the value of neutrophils in all the cases. On the basis of history, clinical and haematological examinations the case was diagnosed as "Thrush".



Fig. 1: Blackish, foul smelling and degenerative frog



Fig. 2: Affected frog coated with triple sulphate powder

Frog was cleaned properly using topical antiseptic solution (Povidone iodine) followed by coating with triple sulphate powder (CuSO_4 , MgSO_4 and FeSO_4) in standard ratio along with coumphos (3%), propoxur (2%), sulfanilamide (5%) powder (Negasunt) alternatively for 12 days (Fig. 2) and then foot was protected in a sterile



Fig. 3: Foot protected in a sterile bandage



Fig. 4: Recovery

bandage (Fig. 3) in all the cases. The animals were kept in a dry and clean stall. Repeated trimming of the frog was done to control the infection as overgrown hooves and frog are more susceptible to the disease. Two animals recovered successfully in 2 weeks while 1 animal recovered in 3 weeks period (Fig. 4).

Thrush was diagnosed by presence of black, odiferous discharge in the sulci of the frog together with the loss of the frog. Similar observations were made by Stashak (2002). Ensminger (1990) recommended the treatment for horses with thrush which included twice daily picking of the feet, taking special care to clean out

the two collateral grooves and the central sulcus. The feet may then be scrubbed clean using a detergent and/or disinfectant and warm water before the frog is coated with a commercial thrush-treatment product or with iodine solution which may be soaked into cotton balls and packed into the clefts. Johnson (1982) applied supersaturated solutions of magnesium sulphate, an astringent and then foot protected in a sterile bandage. In animals of present study also similar treatment was followed and frog was coated with triple sulphate powder (CuSO_4 , MgSO_4 and FeSO_4) along with coumphos (3%), Propoxur (2%), Sulfanilamide (5%) powder (Negasunt) alternatively for 12 days. Two animals recovered successfully in 2 weeks while 1 animal recovered in 3 weeks period.

The neutrophilia or increased number of circulating neutrophils can occur in physiological (stress response, spleen contraction) and pathological situations (inflammation, infection, neoplasia) (Satue *et al.*, 2014). The magnitude of neutrophilia is higher in infectious processes localized with abscess formation, compared to widespread inflammatory disorders (Munoz *et al.*, 2012; Viu *et al.*, 2012). However, in present study high neutrophils value indicated presence of stress, infection and mild inflammatory changes.

CONCLUSION

On the basis of history, clinical and haematological examinations the case was diagnosed as "Thrush". Frog was coated with triple sulphate powder (CuSO_4 , MgSO_4 and FeSO_4) along with coumphos (3%), propoxur (2%), sulfanilamide (5%) powder (Negasunt) alternatively for 12 days and then foot protected in a sterile bandage in all the cases. Animals recovered successfully.

REFERENCES

- Ensminger, M.E., 1990. Horses and Horsemanship: Animal Agriculture Series. 6th Edn., Interstate Publishers, Danville, Illinois, Pages: 62.
- Johnson, J.H., 1982. The Foot. In: Equine Medicine and Surgery, Mansmann, R.A. and E.S. McAllister (Eds.). American Veterinary Publications, Santa Barbara, California, pp: 1033-1055.
- Munoz, A., C. Riber, P. Trigo, M. Gomez-Diez and F. Castejon, 2012. Bacterial endocarditis in two spanish foals after neonatal septicemia. J. Equine Vet. Sci., 32: 760-766.
- Parks, A., 1998. Chronic Foot Injury and Deformity. In: Current Techniques in Equine Surgery and Lameness, White, N.A. and J.N. Moore (Eds.). WB Saunders Co, Philadelphia, pp: 534-536.
- Reeves, M.J., J.V. Yovich and A.S. Turner, 1989. Miscellaneous conditions of the equine foot. Vet. Clin. N. Am. Equine Pract., 5: 235-236.
- Satue, K., A. Munoz and J.C. Gardon, 2014. Interpretation of the equine leukogram. J. Hematology Res., 1: 27-35.
- Stashak, T.S., 2002. The Foot. In: Adams Lameness in Horses, Stashak, T.S. (Ed.), Lippincott Williams and Wilkins, Philadelphia, pp: 645-733.
- Stewart, K.L., 2003. Thrush in horse hooves. Horse Channel: Horse-Health, UK.
- Viu, J., L. Monreal, E. Jose-Cunilleras, C. Cesarin, S. Anor and L. Armengou, 2012. Clinical findings in 10 foals with bacterial meningoencephalitis. Equine Vet. J., 44: 100-104.