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Case Study

CLINICAL MASTITIS IN A CROSS BRED COW: A CASE STUDY

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ABSTRACT

A cow belonging to the Holstein Friesian breed aging five years was presented at Arawali Veterinary College, Sikar with the history of Swollen udder, blood and flakes in the milk, off fed since last two days and was successfully treated with Injection Intacef (Ceftriazone), Injection Isoflud (Isoflupredone), Injection Belamyl, ointment Mastilep and Ubrolexin intramammary infusion. There was complete recovery in the cow after five days of treatment.

Keywords: Cow, Clinical mastitis, Ceftriazone, Cefalexin-Kanamycin

INTRODUCTION

Mastitis which is the inflammation of the parenchyma of the mammary gland is characterized by physical, chemical and bacteriological changes in the milk and pathological changes in the glandular tissue.¹ Mastitis is a complex disease with multiple predisposing factors and various causative agents. In addition to the huge direct and indirect economic losses, the presence of certain pathogens in the milk threatens public health.² Intramammary bacterial infection is the primary reason of bovine mastitis. Hence, Treatment of mastitis is solely based on control of infection by antibiotics.³

Case history and observations

A cross bred cow belonging to the Holstein Friesian breed aging five years was presented at the Teaching Veterinary Clinical Complex (T.V.C.C.) of Arawali Veterinary college, Sikar from college dairy farm with the history of Swollen left hind quarter, blood and flakes in the milk from left hind quarter, off fed since last two days. On clinical examination it was found that the body temperature was 103.2°F, pulse and respiration rate was 44 and 24 per min respectively. Udder was red hot and painful to touch, color of milk was red due to the presence of blood including some flakes also indicating haemagalactia condition. On the basis of history and clinical signs, it was diagnosed as clinical mastitis.

The milk sample was collected from the left hind quarter for the microbiological examination and antibiotic sensitivity test. Gram staining revealed the presence of Gram positive Streptococci. Antibiotic sensitivity test revealed that the bacteria was highly sensitive to the Cephalosporin, Penicillin, Tetracycline, Gentamicin and Chloramphenicol and low degree of sensitivity was found for Amikacin and Ampicillin.^{4,5}

Treatment and Discussion

The treatment of the cow was started with Injection Intacef (Ceftriazone) @10mg/kg b.wt. b.i.d intramuscularly, Injection Isoflud (Isoflupredone) @ 10mg on alternate day intramuscularly, Injection Belamyl (Liver extract + Riboflavin + Niacinamide + Vitamin B₁₂) @10ml intramuscularly O.D., after cleaning the udder with water and dried and then Ointment Mastilep (*Curcuma longa*, *Glycyrrhiza glabra*, *Paedaria foetida*, *Cedrus deodara*, *Eucalyptus globosus*, Shudh gandhaka) was applied locally to the udder b.i.d and Ubrolexin (Cefalexin and Kanamycin) intramammary infusion-200mg b.i.d. The cow responded after first day of treatment, started taking feed, flakes and blood in the milk was reduced and body temperature also became normal i.e. 101.2°F. The same treatment was continued for 5 days and cow was recovered completely, there were no blood and flakes in the milk, appetite, temperature, pulse and respiration of the cow was also became normal.

Ceftriazone is a third generation cephalosporin and very effective against Gram positive organisms, it acts by inhibiting

the cell wall formation in the bacteria. This is bactericidal in nature. Isoflupredone help in overcoming the toxemia and swelling in the udder. Mastilep produces antibacterial, anti-inflammatory, analgesics, antihistaminic and immunomodulatory effect.⁶ The most important route of administration of antimicrobials in mastitis is the intramammary route because the drug is directly infused into the diseased quarter.

CONCLUSION

The complete recovery of the clinical case of mastitis in cross bred cattle was reported in this case study after optimum therapeutic and clinical management.

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