

Clinico therapeutic management of brucellosis in Kashmir

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ABSTRACT

Management of brucellosis in three cows and in one human using oxytetracycline and Streptomycin combination has been recorded.

Key words: Brucellosis, Animals, Human, Oxytetracycline, Streptomycin.

Brucellosis in animals is a serious health problem and a well known zoonotic disease transmitted to the practitioner while handling infected animals. The prevalence of the disease is associated with demographic and geological factors and has been reported from different parts of the country (Mahato, 1990 and Mrunalini *et. al.*, 2004). Treatment and vaccination of the animals is only suggestive of controlling this disease and combination of oxytetracycline and streptomycin have been used successfully by various workers (Nicoletti *et. al.*, 1985; Barman, 1991 and Mahato and Sharma, 2002). The present paper reports four (4) cases of brucellosis, three (3) of bovine and one (1) of human brucellosis.

Case-1:

A five-year-old crossbred Jersey cow in her second lactation was presented to the Clinical Complex with the history of anorexia, dullness and depression. Temperature was 104°F with increased respiration and heart rate. Animal had aborted at 7 months of pregnancy 3 days before. On rectal palpation pasty brownish exudates was coming through vulva with fetid odour. The animal was suffering from retained placenta till 16 hours post-abortion, which was removed manually by a local veterinarian.

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Case-2:

A 10 year old crossbred jersey cow was brought to the clinical complex with the history of retained placenta following abortion one day earlier at 5 months of pregnancy. Two female foeti were aborted. Both the foeti had patchial haemorrhage on abdominal, lumber, shoulder and hip region.

Temperature was 103°F, with increased pulse and respiration rate. Animal had the history of abortion at 8 months in her previous gestation too.

Case-3:

A pleuriparous cow with the history of abortion one day earlier at 6 month of gestation with retention of placenta was presented to the clinical complex for treatment.

Case-4:

A Para-veterinarian of this clinical complex regularly attending the gynecological cases showed joint pain and intermittent fever since 3-4 months followed by orchitis, which did not respond to routine treatment.

Blood samples were collected from all the clinical cases and serum analyzed by the division of Public Health of this faculty for confirmation of brucellosis. However, the sample of the para-veterinarian was sent to the Shër-e-Kashmir Institute of Medical Sciences, Soura, Srinagar, Kashmir for confirmation of brucellosis. All the cases were found positive for brucellosis on RBPT and CFT and

following therapeutic management was advocated in three bovine cases accordingly.

In case-1, pus from the uterus was evacuated manually and 20ml of 0.2% lugol's solution deposited intrauterine. In case-2 and 3, placenta was removed manually and Furea* and 2 Steclin boli** were deposited in the uterus followed by Uterotone*** liquid, an ecbolic @100 ml daily for 3 days orally. Parenteral antibiotics in all cases included administration of long acting Oxytetracycline @20mg/kg body weight intramuscularly at 72 hours intervals for 5 occasions and Streptomycin @25 mg/kg body weight through I.V. route for 5 consecutive days from first day of treatment. All the cases responded well to the above treatment and these animals came into estrus within 90-120 days of post treatment and were inseminated artificially. Later the animals were found pregnant at 2 months post insemination or rectal palpation. Tetracycline and Streptomycin is sensitive antibiotic against brucella species (Hall and Manion, 1970). Further, Streptomycin could act synergistically with Tetracycline to kill the *Brucella abortus* within bovine cell culture (Richardson and Hall, 1962). Brucella organism, besides initiating abortion might also cause mastitis, joint ill and retention of placenta (Blood et al., 1979) and could be eliminated successfully with the present combined therapeutic regimen. Zoonotic nature of the disease was previously recorded by several workers (Singh et al., 2004 and Mrunalini et al., 2004) and was recorded in the present paper too. However, the Para-Veterinarian responded well to the following treatment given by the Physician. Treatment consisted of Doxycycline hyclate 100mg tablet daily for 45 days and Streptomycin injection 75mg daily for 21 days. The person found negative for brucellosis, when examined on 50th day of post-treatment.

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