

Clinical efficacy of different intrauterine preparations in repeat breeder bovines

P.M. MANE

● ABSTRACT ●

Present study was carried out in and around Sangamner area. A total of 34 cases presented for the treatment of repeat breeding during the period of eight months. The animals were divided into four groups consisting total 36 animals. In group I (11 cross breed cow)-Treated with Ciprofloxacin and Tinidazole combination (20 ml in each horn) 40-50 ml intra-uterine daily for 2 days. Group II (9 cross breed cow)- treated with Gentamicin sulphate, dose- 10 ml Gentamicin + 30 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period. Group III (9 cross breed cow) – Treated with Tetracycline Hydrochloride 10 ml + 30 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period. In Group IV (7 cross breed cow) - Treated with 40 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period. The pregnancy diagnosis was carried out at 60 days after A. I. by per-rectal examination and the clinical efficacy of different intrauterine preparations were determined on the basis of conception rate among the groups. It is concluded that Ciprofloxacin and Tinidazole may be used as the most effective drug for the treatment of repeat breeding in animals at field condition as compared to other intrauterine preparations.

KEY WORDS : Clinical efficacy, Intrauterine, Repeat breeding

Mane, P.M. (2010).Clinical efficacy of different intrauterine preparations in repeat breeder bovines, *Res. J. Animal Hus. & Dairy Sci.*, 1 (2) : 77-79.

● INTRODUCTION ●

An increase in number of bacteria and on in their virulence, cervicitis or endometritis of sufficient degree may be caused and this in turn may result in early embryonic death or repeat breeding problems in dairy animals (Easley *et al.*, 1951). Various field studies (Baishya *et al.*, 1998, Sharma *et al.*,1988) reveal that sub clinical endometritis especially that caused by non-specific infections is a major contributor to the repeat breeder syndrome. Intra uterine therapy with antibiotics in repeated breeding cattle and buffaloes had been found successful by Luktuke *et al.* (1958).

Present study was carried out to find clinical efficacy of different intrauterine preparations in repeat breeder bovines.

● MATERIALS AND METHODS ●

Present study was carried out in and around Sangamner area. A total of 34 cases were presented for the treatment of repeat breeding during the period of eight months. The detailed history was recorded and gynaeco-

clinical examination was carried out. The animals were considered as repeat breeder because they showed normal or nearly normal oestrous cycle and had apparently normal genitalia but failed to conceive after 2-3 or more successive insemination with semen of known fertile bulls.

The animals were divided into four groups consisting total 36 animals. In group I (11 cross breed cow) - treated with Ciprofloxacin and Tinidazole combination (20 ml in each horn) 40-50 ml intra-uterine daily for 2 days. Group II (9 cross breed cow) – treated with Gentamicin sulphate, dose- 10 ml Gentamicin + 30 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period. Group III (9 cross breed cow) – treated with Tetracycline Hydrochloride 10 ml + 30 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period. In Group IV (7 cross breed cow) - treated with 40 ml distilled water (20 ml in each horn) intrauterine for 2 days during estrous period.

In all the animals artificial insemination (A. I.) was carried out to the 2nd oestrous after treatment with good quality of frozen semen. The pregnancy diagnosis was carried out at 60 days after A. I. by per-rectal examination and the clinical efficacy of different intrauterine preparations were determined on the basis of conception rate among the groups.

Correspondence to:

P.M. MANE, S.R. Thorat Milk and Milk Products Private Limited, Sangamner, AHMEDNAGAR (M.S.) INDIA

● RESULTS AND DISCUSSION ●

The results of different intrauterine preparations in group I, II, III and IV of repeat breeding animals are presented in Table 1.

Table 1 : Results of different intrauterine preparations			
Groups	No. of animals treated	No. of animals conceived in 1st service	Conception rate (%)
I	11	09	81.82
II	09	04	44.44
III	09	02	22.22
Iv	07	01	14.28

In Group I (11 cross breed cow) – repeat breeding animals were treated with Ciprofloxacin and Tinidazole combination out of which 9 animals (81.82%) conceived. In this study Ciprofloxacin and Tinidazole combination was found to be the most effective drug (81.82%). This might be due to that this drug is not commonly used for the routine treatment in the field condition. The present result is in close agreement with Das (2004), Das *et al.* (1996) and Purohit (2003). However, Gupta *et al.* (2005) reported 86.6% and 93.3% conception rate found in 3 day intrauterine during oestrous and 12-15 hrs post insemination in cows and buffaloes, respectively.

In Group II (9 cross breed cow) – repeat breeding animals were treated with Gentamicin sulphate, out of which 4 animals (44.44 %) conceived. The present result is close agreement with Das (2004), Das *et al.* (1996), Baishya *et al.* (1998) and Waugh *et al.* (1991). Where as sarmah *et al.* (1993) and Gupta *et al.* (2005) recorded higher per centage of conception rate in Gentamicin treated groups.

In Group III (9 cross breed cow) – repeat breeding animals were treated with Tetracycline hydrochloride out of which 2 animals (22.22 %) conceived. The present result is in close agreement with Das (2004). However, Singh *et al.* (1997) and Gupta *et al.* (2005) recorded more percentage of conception rate in repeat breeding animals with Tetracycline hydrochloride.

In Group IV (7 cross breed cow) – repeat breeding animals were treated with distilled water out of which 1 animal (14.28 %) conceived by 2nd A.I. The present result is in close agreement with Baishya *et al.* (1998). However, Gupta *et al.* (1983) and Das (2004) recorded a higher and lower per centage of conception rate in repeat breeding animals treated with infusion of distilled water, respectively.

In group II and III results, the variations occurred by

different workers might be due to degree of damage caused by the bacteria and variation of types of bacteria. Similarly, in control group, due to the difference of etiology causing repeat breeding in animals.

It is concluded that Ciprofloxacin and Tinidazole may be used as the most effective drug for the treatment of repeat breeding in animals at field condition as compared to other intrauterine preparations.

● LITERATURE CITED ●

- Biashya, S.K. Das, K.K., Rahman, H. and Borgohain, B.N. (1998). Antibigram of bacterial isolates from Uterine discharges of repeat breeding cattle. *Indian J. Comparative Microbiology – Immunology of Infectious Diseases*, **19**(2): 130-131.
- Das, K.K. (2004). A trial on the commonly available drugs of C- Flox (I.U.) for the controlling of repeat breeding condition in cattle. *Intas Polivet*, **5** (11) : 199-203.
- Das, K.L., Misra, P.R., Kar, B.C. and Roy, P.K. (1996). Aerobic bacterial isolates of their antibiogram in repeat breeding cows. *Indian Veterinary J.*, **73**(8): 900-902 .
- Easley, G.T., Leonord, R.H. and Toffler, D.M. (1951). Bacteriological, pathological clinical studies on the deproduretion tract of the Hereford cows and a bacteriological study of Hereford bull semen, *An. Vet.*, **32**: 258-266.
- Gupta, R.C., Sinha, A.K. and Krishnaswamy, A. (1983). Studies on the efficacy of some post-service intra isterine infusions on the conception rate of repeat breeding cattle. *Theriogenology*, **20**(1):559-564.
- Gupta, R.K., Gupta, S. and Bhatia, N. (2005). comparative efficacy of C-Flox Tz in repeat breeders. *Intas Polivet*, **6** (1) : 34-36.
- Luktuke, S.N., Naidu, P.R. V. and Bhattacharya, P. (1958). Preliminary investigations of intrauteeing treatment with antibiotics in repeat breeders. *Indian Vet. Sci. & Animal Hus.*, **28**: 39:99
- Purofit, G.N., Gupta, K.A., Vyas, K., Gupata, A.K., Garg, N., Chaturvedi, K.K., Pareek, P.K., and Sharma, S.S. (2003). Use of fluroguirwlones for treating sub-clinical uterine infections. *The Blue Cross Book*, **21**:19.
- Sarmah, A.K., Bora, T.C. and Baishya, N. (1993). studies on certain aspects of infertility in crossbred cattle of Assam with special reference to repeat breeding. *Indian J. Animal Health*, **19**(4): 52-55.
- Sharma, R. N., Singh, B.K. and Sinha, M.P. (1988). Bacteriological studies on the cervical mucurs of repeat breeding crossbred cattle, their treatment of conreption rate. *Indian J. Anim., Reprod.*, **2** (2): 105-109
- Singh, B., Deen, A., Gupta, A.K. and Srivastava, A. (1997). Therapeutic trials on infertile cows. *Indian Vet. J.*, **74** (3) : 265-266.

Wagh, A.J., Hukeri, V.B. and Deshpande, B.R. (1991). Repeat breeder crossbred cows and remedial measures thereon. *Livestock Adviser*, **16** (6) :3-6.

