

Effect Of Pgf₂ □ On Conception Rate In Suboestrus Dairy Buffaloes

L. Ramsingh¹, K.Muralimohan ²,

¹Department of Veterinary Gynaecology & Obstetrics, College of Veterinary Science,

²Rajendranagar, Hyderabad - 500 030 Sri Venkateswara Veterinary University,
ANDHRA PRADESH, INDIA.

Abstract: Suboestrus is the major causes of infertility in post partum buffaloes which leads to economic losses due to increased service period. The present study was undertaken to evaluate efficacy of PGF₂α in suboestrus dairy buffaloes.

Key words: PGF₂α, Dairy buffaloes, Suboestrus

I. Material Methods:

The study was conducted in a private dairy farm nearby Shamshabad, Rajendranagar, Hyderabad, Andhra Pradesh India. Post partum, brucellosis free. Dairy buffaloes body weight 470kg. Approximately good health score, good production performance were selected. Eight dairy buffaloes were included in the experiment with history of normal calving, no complication and no exhibition of oestrus even after 150 days of calving. Rectal examination of the animals ovarian activities and were diagnosed as suboestrus. The selected animals were divided into treatment and control groups. Four animals having full mature corpora lutea with diameter of 1.0 to 1.5 cms were injected with 500 µg PGF₂α (alpha) I/M and four animals with either developing or regressing corpora lutea and developing graffian follicular were untreated in control group. The same injection was repeated on 11th day and the treated animals were bred after 72 hrs of treatment through single natural service by fertile bull. Observations on ovarian changes were monitored after each treatment of PGF₂α by rectal examination for recording duration of oestrus and time of ovulation, rectal palpation ovarian events and pregnancy.

II. Results And Discussion:

First dose of PGF₂α treatment into luteolysis and induction of oestrus in all four dairy buffaloes within 64.24±4.23hrs .The oestrus was of 16.32 ± 1.23hrs duration and ovulation occurred after 8.02±1.12hrs of cessation occurred in all the animals from treatment group. Second luteolytic dose resulted into induction of oestrus in buffaloes within 52.23±1.23 hrs of treatment. Duration of oestrus was 18.12±0.32 hrs and the ovulations occurred after 4.34±0.25 hrs of cessation oestrus. Two buffaloes were found pregnant after 60 days. Untreated control group continued the ovarian cyclicity with suboestrus condition for a period of 45 days. The corpora lutea were found very small with diameter less than one centimeter and the follicles showed unovulatory pattern in control group. Duration of oestrus and time of ovulation after second luteolytic dose was more uniform in all the treated animals compared with that of the first luteolysis. Conception rate 63.23% was recorded in the present study. Sing *et. al.*, (1979) used single luteolytic PGF₂α for treatment of suboestrus in buffaloes and reported 88.3 percent induction of oestrus but the conception rate was recorded as 36.8 percent. Pant and Singh (1991) reported 54.8 percent conception rate after use of PGF₂α in the treatment of suboestrus in buffaloes. Goutam *et al.*, (1990) reported 40 to 48 percent conception rates with use of PGF₂α with single and double dose and with different routes of administration. Higher conception rate recorded in the present study might be due to full double dose therapy leading to complete luteolysis and resulting into uniform range of synchronized oestrus. Present finding conform the high efficacy of PGF₂α for getting best conception rate in suboestrus Dairy Buffaloes.

III. References:

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