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Short Communication

Seasonal variation in the incidence of parturient disorders of Sahiwal cattle

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ABSTRACT

A total of 443 calving records of Sahiwal cows maintained at Military Farm, Meerut, during the period of April, 1994 to March 1999 were analyzed to study the incidence of parturient disorders. The over all incidence of abortion, still birth, premature birth, retention of placenta, dystocia and total parturient disorders were 3.16, 2.70, 0.45, 7.00, 0.90 and 14.21 per cent, respectively. The highest incidence of total parturient disorder was observed during winter (7.00%), followed by summer (3.84%) and rainy (3.39%) seasons. The seasons or periods were not found to significantly ($P<0.05$) affect the incidence of various types of parturient disorders in Sahiwal cattle.

Key words: Parturient disorders, Sahiwal, cow

Parturient disorders like abortion, still birth, premature birth, retained placenta, dystocia etc. cause stress and trauma to the reproductive tract that result in significant reduction in milk production in the ensuing lactation (Arthur 1975; Pandey *et al.*, 1994). More over, parturient disorders delay uterine involution and increase dry period, service period and calving interval leading to either a shorten productive life (Chaudhary *et al.*, 1974), or infertility and sterility which may account for as much as 40 percent annual disposal of cattle (Iyre, 1978). As the incidence of parturient disorders varies with species, breed, location of farm etc. the present investigation was carried out in Sahiwal cows to find out their incidences and seasonality of occurrence.

A total of 443 calving records (April 1994-March 1999) of Sahiwal cows maintained at Military Farm, Meerut were analyzed to study the incidence of parturient disorders viz. abortion, still birth, premature birth, retention of placenta and dystocia. The recorded data were classified into five years (periods) and each year was subdivided into three seasons viz. summer (April-June), rainy (July-October) and winter (November-March). The data were analyzed by applying chi-square test (Amble, 1975).

The overall incidence of abortion, still birth, premature birth, retention of placenta, dystocia and total parturient disorders were 3.16, 2.70, 0.45, 7.00, 0.90 and 14.21 per cent, respectively. The total incidence of still birth and premature birth (Table 1) as obtained in the present study (6.13%), was found to be nearer to the observation of Amble and Jain (1967) in Sahiwal (8.0%) cattle. The occurrences of abortion and still birth were similar to the observations of Saxena *et al.* (1991); however, Kaikini *et al.* (1976) reported lower rate of incidence in the same breed. The incidence of abortion and still birth in Sahiwal cattle as observed in the present investigation could be considered as moderate as compared to other Indian breeds like Ongole, Hallikar and Red Sindhi (Narasimha Rao, 1982), Kankrej (Chaudhary *et al.*, 1986), Rathi and Hariana (Saxena *et al.*, 1991). No significant seasonal variation in the occurrence of abortion, still birth and premature birth were found in the present study.

The over all incidence of retention of placenta was 7.00 percent and no significant seasonal variation observed in its incidence. Saxena *et al.* (1991) reported very high (18.82 percent) and Kaikini *et al.* (1976) observed very low value (2.3%) as compared to the present findings in Sahiwal cattle. In other Indian breeds like Rathi, Hariana, Ongole, Tharparkar and Gir the incidence varied from 2.20 to 11.00 % (Ramamohana Rao, 1991), however, the placental retention rate in Sahiwal cattle was more close to that of Gir breed.

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The incidence of dystocia was found to be very low (0.90%) and the seasons showed no significant effect on its incidence. Similarly, Kaikini *et al.* (1976) also obtained a low (1.70%) incidence of dystocia in Sahiwal cattle. In other Indian breeds like Tharparkar, Hariana and Ongole the incidence was very low ranging from 0.59 to 1.60 % (Pandey *et al.*, 1981; Narasimha Rao, 1982; Verma and Mishra, 1984), where as, very high values (8.88 to 9.82%) had been reported in Gir cattle (Tambe, 1974; Shukla *et al.*, 1978).

The over all incidence of total parturient disorder was 14.21 % and no significant seasonal variation was observed in its occurrence. This might be attributed to the better adaptability of this breed. The non-significant seasonal variation in the incidence of parturient disorders in Sahiwal cattle indicated that special seasonal management might not be necessary to circumvent it in the existing conditions, although general management need to be improved to reduce the occurrence to the minimum possible extent.

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