

Ovarian activity in beef and dairy cows with prolonged postpartum period and heifers that fail to conceive

ABSTRACT

The primary objectives of this study were to investigate incidence of abnormal ovarian cyclicity (AOC) and its type in dairy and beef cows with prolonged postpartum period (>90 days) and in heifers that fail to conceive. A total of 53 animals were included in the study: 17 Friesian crosses, 16 Braford crosses, eight Brangus crosses, and 12 local Kedah-Kelantan (KKX) crosses. These animals were initially checked for absence of pregnancy via palpation per rectum. Blood samples for progesterone analysis were obtained twice a week for 2 to 3 months following their spontaneous oestrous cycle, and all animals were rechecked for pregnancy at the end of the study. Progesterone analysis indicated that 33.9% of the total animals were having AOC: 18.9% with cessation of ovarian cyclicity, 9.4% with prolonged luteal phases (PLP), and 5.7% short luteal phases. The highest incidence was observed in Brangus crosses (62.5%), followed by Braford crosses (43.8%), and Friesian crosses (35.3%). In contrast, no AOC was observed in the local KKK breeds, and all of them were found to be pregnant at the end of the study. A significant difference ($p < 0.05$) in the incidence of AOC and its type was observed between Kedah-Kelantan crosses and the other breeds. Although not significant ($p > 0.05$), Friesian crosses showed a higher percentage incidence of AOC than beef cows (40% vs 36.4%), with major types being PLP (26.7%) in dairy and cessation of ovarian cycle (27.3%) in beef cows. Compared with beef heifers, beef cows showed a higher percentage of AOC (36.4% vs 28.6%) where again, cessation of cyclicity was the predominant abnormality. In conclusion, AOC reflected by abnormal endocrine pattern is a possible cause of reduction in fertility for dairy and beef cows beyond 90 days postpartum and heifers that fail to conceive.

Keyword: Conception failure, Cows, Heifers, Ovarian cycle, Progesterone, Prolonged postpartum period