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 KKX 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