ABSTRACTS

ISCFR 2012

July 26-29, Whistler, Canada

In a joint meeting with

EVSSAR 2012

15th Congress of the

European Veterinary Society for Small Animal Reproduction

Editors: Gary England, Michelle Kutzler, Pierre Comizzoli, Wojciech Nizanski, Tom Rijsselaere and Patrick Concannon

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Seasonal reproductive activity of domestic queens (*Felis catus*) in the tropics of Mexico

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OBJECTIVES AND METHODS: With the objective to determine seasonal ovarian activity of domestic queens under Mexican tropical conditions (19° 30’ and 21° 35’ North latitude, 87° 30’ and 90° 24’ West longitude), a total of 233 uterine tracts were evaluated during 2010-2011 after elective ovariohysterectomy. Recovered uteruses were macroscopically evaluated in search of corpora lutea or follicles (≥3mm) indicating estrus, which was confirmed by vaginal cytology. Pregnancies and pathologies were also noted. Distribution of queens with ovarian activity (estrus, diestrus or pregnant), anestrus, pregnancies and ovulation rate by season of the year (spring, summer, autumn and winter) were evaluated.

RESULTS: Ovarian activity during spring was 90.9%, summer 90.2%, autumn 74.5% and winter 47.5%; on the contrary anestrus was lower during spring (9.1%) and showed an increase during summer (9.8%), autumn (25.5%) and winter (52.5%). Pregnancies were more commonly seen during spring (33.3%) and a reduction was observed during summer (32.8%), autumn (8.5%) and winter (10%). Ovulation rate varied from 2.5 to 2.8 during the four seasons of the year. Cystic endometrial hyperplasia (1.7%), pyometra (1.4%) and ovarian follicular cysts (0.9%) were the most commonly lesions found. Daylength difference between summer (13.2 hrs) and winter (10.7 hrs) in the region is 2.5 hrs. Cats are considered seasonally polyestrus species (1) with ovarian activity depending on the daylength (2). The results here found demonstrate a clear effect of the season of the year on the ovarian activity. However, estrus periods and pregnancies may occur throughout the year. It is stated that at 20° north of the equator, 2.5-3 hours of daylength difference is not enough to shorten the reproductive phase (2) contrary to the findings on the present study. Factors such as social stimuli from either an estrus female or a male may also induce estrus induction (3) acting in conjunction with the daylight/dark. Frequency of reproductive lesions was low but may affect the cyclicity of queens and if left unattended may have repercussions on the health status of the animals.

CONCLUSION: It is concluded that within the tropics of cancer, the variation of 2-3 hours of the daylength may induce seasonal variation on the reproductive activity of domestics female cats, but do not totally stop breeding activity. Reproductive lesions are frequently seen in queens.