ABSTRACTS

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Monitoring of pregnancy by ultrasonography in bitches depending on the first mating

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OBJECTIVES AND METHODS: The early determination of pregnancy and the gestational age are important for reproductive management in small animal practices. In addition, predicting the parturition date can help in managing parturition or planning a caesarean section in pregnant bitches with multiple mating or an unknown mating time. Ultrasonography is a useful imaging modality for determining pregnancy, estimating the litter size foetal development and uterine examination after parturition, a reproductive examination and the direct detection of ovulation.

Ten 2 to 4-year-old bitches weighing 17–30 kg were used. The pregnancy was detected using trans abdominal echography. Serial ultrasonographic examinations were performed every 2 days from day 15 post mating. All the dogs were examined using real-time Bmode ultrasonography.

RESULTS: The gestational sac was first detected on day 17. The echogenic linner layers surrounding the gestational sac were developed into a zonary placenta (1). The amniotic membrane was detected on day 26, which encompassed the embryo. The heartbeat, which is one of foetal vital signs, was detected on day 22. The limb buds were first detected on day 29 and foetal movement was detected on day 30. The first abdominal viscera detected were the stomach and the urinary bladder on days 33 and 34, respectively. The lung became hyperechoic, compared with the liver parenchyma, on day 35. At this time, the abdomen and the thorax were distinct. The liver was observed to be hypoechoic, compared with the rest of the abdomen on day 36. The skeleton was detected as a hyperechoic structure on day 35(2).

CONCLUSION: The aim of this study was to make an early determination of pregnancy, to establish the time for the initial detection of fetal structures and anatomy development using ultrasonography and to provide the basic data for estimating the gestational age in bitches.
