Early pregnancy termination by aglepristone in queens
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The aim of this study was to assess the efficacy of aglepristone to terminate early gestation in queens. The hypothesis was that aglepristone would terminate early pregnancy in queens without side effects. Fifteen healthy queens were maintained under artificial illumination (14 h light: 10 h dark) in cages, and 20 days after first mating pregnancy was confirmed by transabdominal ultrasonographic examination using an ultrasound scanner equipped with a 5-7.5–10 MHz linear transducer (Mindray™, DP-6600 Vet; Nanshan, China). On days 21 to 22 of pregnancy, queens were divided in two groups. One group received 10 mg/kg aglepristone (Alizin®, Virbac, Germany, ALI, sc, n=10) on two consecutive days, and the other group received 1 ml of saline solution (PLA, sc, n=5) on two consecutive days. After pregnancy diagnosis females were monitored by ultrasonography until day 10 post-treatment in both groups and weekly until parturition in the PLA group. During each ultrasound examination, the length (LEN), anterior-posterior (AP), and width (WID) dimension of each gestational sac (GS) were measured. The GS volume (GSV) was calculated using the ellipsoid shape formula and GS diameter (GSD), was calculated as the mean of the three measurements of the GS. Data were analyzed with ANOVA using the SAS® program. The pattern of LEN, AP, WID, SD, GSD (mm), and GSV (mm³) growth of the GS after treatment in ALI group was different compared to PLA group (interaction of treatment by day of treatment, P<0.001). On day 0, the LEN, AP, WID, GSD, and GSV growth of the GS were similar in ALI and PLA groups (P>0.23). In contrast on day 4-5 and on day 10 the LEN, AP, WID, GSD (mm), and GSV (mm³) of GS were higher in the PLA group compared to the ALI group ([day 4-5, LEN: 25.9±1.2 vs. 18.9±1.0; AP: 18.1±0.8 vs. 12.2±0.7; WID: 21.0±0.9 vs. 16.8±0.9; GSD: 21.6±0.8 vs. 16.1±0.7; GSV: 5053±373 vs. 2457±336; P<0.01], [day 10, LEN: 31.3±1.6 vs. 17.2±0.9; AP: 20.0±1.4 vs. 11.9±0.8; WID: 23.9±2.1 vs. 12.7±1.1; GSD: 24.7±1.2 vs. 13.9±0.6; GSV: 7635±670 vs. 1510±358; P<0.01]). In the ALI group, gestation interruption occurred in all queens within 4.3±0.6 d after first treatment, whereas in PLA group all queens littered 2.8± 0.3 kittens after a normal gestation period of 64.0±1.0 d. Furthermore, the treatment-interruption of gestation interval was shorter than the treatment-parturition interval (4.3±0.6 vs. 43.0±0.9, P<0.01). However, the interval from interruption of gestation to the next estrus and the interval from parturition to next estrus were similar in ALI and PLA (62.8±9.5 vs. 76.2± 13.4 d, P=0.43). Mean interval between administration of aglepristone and beginning of vaginal discharge was 7.4 ± 0.9 d. It was noteworthy that none of the queens had any clinically detectable side effects during treatment. In conclusion, the use of aglepristone in queens at days 21-22 of pregnancy induced termination of pregnancy without side effects and it could be readily monitored by transabdominal ultrasonography.

Keywords: Queen, aglepristone, interruption of pregnancy, early pregnancy, ultrasonography.

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