Effect of Different Doses of Equine Chorionic Gonadotrophin on the Pregnancy Rates in the Awassi Ewes in Out-of-breeding Season

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The present study aimed to investigate the effect of different doses of equine chorionic gonadotrophin (eCG) on the pregnancy rates in the Awassi ewes during the non-breeding season. A total of 90 multiparous non-lactating healthy Awassi ewes, aged between 2-4 years old and with an average body condition of 3 (on a scale of 1 to 5), were included in the study. Ewes were grazed on natural pastures during the study period. A total of 10 Awassi rams, healthy and known to be fertile, were used in the study. Nutritional flushing treatment commenced 10 days before the matings and lasted until matings ended in both ewes and rams. 200 gr of barley, 150 gr of cottonseed and 150 gr of peanut hull were given as nutritional flushing. For estrus synchronization, medroxyprogesterone-acetate-impregnated intravaginal sponge (Esponjavet, HIPRA, Spain) was inserted and kept within the vagina for seven days. All ewes received 125 µg d-cloprostenol (Selexol, Pi Farma, Türkiye) intramuscularly at sponge removal. At sponge removal, ewes were divided into two groups randomly. Group eCG500 (n=45) received 500 IU of eCG (Oviser, HIPRA®, Spain); Group eCG400 (n=45) received 400 IU of eCG (Oviser, HIPRA®, Spain) intramuscularly. Rams (n=10) were introduced to the flock twice a day for five days starting at 36 hours after sponge removal. Ewes that mated were removed from the flock and left separately until matings ended. Pregnancy examination was carried out by transrectal ultrasonography at the 35th and 50th after ram introduction. The presence of the embryo and heartbeat of the embryo were considered pregnancy-positive. Pregnancy rates were calculated with a chi-square test, and $p<0.05$ was accepted as significantly important. According to the results, 35th and 50th day pregnancy rates were 51.00% and 52.50%, 73.00% and 67.00% in eCG500 and eCG400, respectively ($p>0.05$). In conclusion, the present study showed that 400 IU eCG is as effective as 500 IU eCG in terms of pregnancy rate in Awassi ewes in the out-of-breeding season.

Keywords: Ewes; eCG; Dose; Pregnancy

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