

Effect of Administrating (*Anethum graveolens*) Dill Seeds on Some Biochemical Blood Parameters in Arrabi Ewes During Different Physiological Stages

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Abstract: This study aimed to identify the effect of dill seeds on some biochemical parameters (albumin, triglycerides, cholesterol, Alanine transaminase ALT, and Aspartate transaminase AST enzymes) in Arrabi ewes during different physiological stages. In this research, sixteen Arrabi ewes, purchased from the Basrah Government's local market were included. The ewes weighed 45 - 53 kg and aged between 1.5 and 2 years. The ewes were divided into four treatment groups. While the first group (T1) were fed 5 g/day of *Anethum graveolens* seeds via gelatin capsules to the mouth of ewes /day for 25 days, the second group (T2) were fed 10 g/day of *Anethum graveolens* seeds via gelatin capsules to the mouth of ewes /day for 25 days. In addition, T3 Applying vaginal sponges impregnated with 20 mg of Medroxyprogesterone acetate (MAP), for 14 days and then injected I/M with 500 I.U PMSG(Chrono-gest) single does. And T4 was the control group. Blood samples were taken from the jugular vein of all ewes using a sterile syringe for biochemical parameters. The results of the study indicated while T3 exhibited the highest concentration in the level of triglycerides compared to the other treatments, there was a significant increase at the level of (P<0.01) in the albumin concentration in T2. The study also revealed that only at the beginning of the experiment, cholesterol levels increased significantly. ALT activities significantly decreased (p<0.05) in the *Anethum graveolens* seeds treatment group compared to the control. Additionally, in the fourth month, AST activities significantly increased (p<0.05). In general, cholesterol and triglyceride concentrations were reduced and liver function was improved when consuming 5 and 10 grams of *Anethum graveolens* seeds.

Keywords: Arrabi ewes, *Anethum graveolens*, Biochemical Parameters, Parturition, Pregnancy.