Evaluation of Progesterone Levels during the Luteal Phase in Athletes and Sedentary Individuals

Yucel Makaraci1*, Erkut Tutkun2, Davut Güven3 and Yildirim Kayacan4

1*,4 Ondokuz Mayis University, Yasar Dogu Faculty of Sports Sciences, Department of Coaching Education, Samsun, Turkey
2 Uludag University, Faculty of Sports Sciences, Department of Coaching Education, Samsun, Turkey
3 Ondokuz Mayis University, Faculty of Medicine, Department of Obstetrics and Gynecology, Samsun, Turkey


ABSTRACT The aim of this study is to investigate the effect of regular exercise on progesterone levels during the luteal phase among basketball players and sedentary women. The study included a total of 34 individuals. Venous blood samples (4 cc) were collected from subjects on days 20 and 21 of the menstrual cycle. Based on the test results, a statistically significant difference was observed between active basketball players and sedentary individuals (p<0.05). The average progesterone levels of the players and sedentary women were 3.84 ng/ml and 7.88 ng/ml, respectively. In accordance with the Pearson’s correlation analysis that was applied to determine the relationship between progesterone levels and age, height, and weight of the subjects, a slight positive correlation was observed between the age and progesterone levels of the subjects (p=0.015). Despite significant differences between the groups with respect to progesterone levels, these values in both groups were within normal limits.