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

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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.