THE EFFECT OF ENDURANCE EXERCISE ON THE POWER, SPEED, TALENT AND ANAEROBIC CAPACITIES OF TEENAGE FEMALE BASKETBALL PLAYERS

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The aim of this study is to investigate a 16-week endurance exercise in terms of power, speed, ability and aerobic capacity in 13–16-year-old female basketball players. Twenty female basketball players participated in the study and they are divided into two groups, ‘endurance group’ and ‘control group’. Both groups have exercised 3 days a week and 90 min a day throughout 16 weeks. The 1st group (endurance group – EG) is applied the interval training method and the 2nd (control group – CG) group is applied general basketball exercises. The groups in the study have taken 20-m speed run, squat jump, countermovement jump and running-based anaerobic speed run tests both before and after the exercises. Paired-samples t test is done for arithmetical mean, SD and the evaluation between groups, and non-parametric test Mann–Whitney U test is done for the comparison of the two groups. Statistically, in the assessment of groups before exercises (EÖ) and after exercises (ES), a significant difference is found in terms of the
number of shoots within the groups themselves, between EÖ and ES, and between the two groups being in favour of EG group. A significant difference in favour of EG group is found in valid shoot and group shuttle tests as well. Statistically significant differences in favour of EG group are also found in the assessment of ES in terms of all the running values of anaerobic speed test. It is seen that there is a significant difference in the fatigue index value of EG group in favour of ES. No statistically significant differences have been observed in the other tests.

In conclusion, interval endurance exercise is seen to have caused an improvement in the number of shoots, in valid shoots, in grouped shuttle tests and in the anaerobic powers of young females. Thus, it can be suggested that the application of interval training method besides cardiovascular and metabolic specific factors in the improvement of endurance in children may be useful.