

PHYSIOLOGICAL, ANTHROPOMETRICAL AND NEUROMUSCULAR PROFILE IN ELITE INTERNATIONAL SENIOR MALE BASKETBALL PLAYERS OF NATIONAL TEAMS. DIFFERENCES BETWEEN CROATIAN AND JAPANESE PLAYERS.

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Introduction. There are many descriptive studies about the physiological, anthropometrical and neuromuscular profile of top level basketball players. These articles describe players from different countries with tradition in basketball, Serbian players (Ostojic et. al. 2006), French players (Sallet et. al. 2005) and also players from countries where basketball is not a traditional sport, such as Indian players (Sodhi, 1980). However, there is no scientific data comparing players from different countries with different level of performance.

Objective. The aim of this study was to compare the differences between two teams of top level basketball players one month before starting either the European or the World Championship in 2005 and 2006, in relation to discriminating physiological, anthropometrical and neuromuscular capacities.

Subjects. 27 senior male basketball players [Croatia national team (CNT), n=14 and Japan national team (JNT), n=13] were volunteered for the study.

Methods. All measurements were performed with the same equipment. Anthropometric characteristics [(Weight (W); Height (H); Body fat (BF) and Fat mass (FM)], neuromuscular capacities [Countermovement jump test (CMJ); Max speed test (MST) and maximal aerobic capacity (VO₂ max)] were measured.

Results. We have found significant differences between teams in H [CNT: 2.01±0.8 vs JNT: 1.91±0.8; (p<0.05)], and W (CNT: 102.94±13.55 vs JNP: 88.00±13.24; (p<0.05)], showing that the CNT players were taller and heavier than JNT players. Equally, the statistical analysis described significant differences between groups in the neuromuscular capacities [(CMJ) (CNT: 36.30±3.94 vs JNT 33.60±4.31;(p<0.1)] and MS (CNT: 17.04±1.43 vs JNT: 18.19±1.49;(p<0.1)]. CNT presented higher values in neuromuscular capacities (CMJ and MS). No significant differences between teams were found in (VO₂ max), BF and FM.

Conclusion. The anthropometric and neuromuscular profile is one of the most discriminating criteria between two countries with different tradition in basketball. According to the results of the two teams in the last years, the anthropometric and neuromuscular capacities could be more important

than technical and tactical aspects with relation to competitive performance.

References.

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