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SELECTION A PLAYING POSITION IN FOOTBALL BASED ON A SYSTEMIC ASSESSMENT OF MORPHOMETRY

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ВЫБОР ИГРОВОЙ ПОЗИЦИИ В ФУТБОЛЕ НА ОСНОВЕ СИСТЕМНОЙ ОЦЕНКИ МОРФОМЕТРИИ

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ТИЗИМЛИ МОРФОМЕТРИЯНИ БАҲОЛАШ АСОСИДА ФУТБОЛДА ЎЙИН ПОЗИЦИЯСИНИ ТАНЛАШ

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Summary. *This article presents a differentiated approach to determining the optimal playing position for young football players based on a systematic assessment of morphometric parameters. The study included comprehensive testing of 55 teenage football players, which analyzed anthropometric data, motor functions and game statistics. It is shown that the use of a comprehensive assessment can significantly improve performance reduce stress levels and increase satisfaction with the chosen position. Statistically significant relationships between physiological, and playing characteristics were revealed, which confirms the feasibility of a personalized approach to choosing a position in youth football. The data obtained can serve as a basis for the introduction of scientifically based methods of positional selection in sports schools and academies.*
Key words: *Youth football; role; morphometry; individualization; sports performance; motivation; positional selection.*

Аннотация. *В данной статье представлен дифференцированный подход к определению оптимальной игровой позиции для юных футболистов, основанный на систематической оценке морфометрических параметров. Исследование включало комплексное тестирование 55 футболистов-подростков, в ходе которого были проанализированы антропометрические данные, двигательные функции и игровая статистика. Показано, что использование комплексной оценки позволяет значительно повысить производительность труда, снизить уровень стресса и повысить удовлетворенность выбранной должностью. Выявлены статистически значимые взаимосвязи между физиологическими и игровыми характеристиками, что подтверждает целесообразность персонализированного подхода к выбору позиции в юношеском футболе. Полученные данные могут послужить основой для внедрения научно обоснованных методов позиционного отбора в спортивных школах и академиях.*
Ключевые слова: *Юношеский футбол; амплуа; морфометрия; индивидуализация; спортивные результаты; мотивация; позиционный отбор.*

Аннотация. *Ушбу мақолада морфометрик параметрларни тизимли баҳолаш асосида ёш футболчилар учун optimal ўйин позициясини аниқлашга табақалаштирилган ёндашув келтирилган. Тадқиқотда антропометрик маълумотлар, motor функциялари ва ўйин статистикаси таҳлил қилинган 55 ўсмир футболчиларини комплекс синовдан ўтказди. Комплекс баҳолашдан фойдаланиш меҳнат унумдорлигини сезиларли даражада ошириши, стресс даражасини пасайтириши ва танланган позициядан қониқишни ошириши мумкинлиги кўрсатилган. Физиологик ва ўйин хусусиятлари ўртасидаги статистик жиҳатдан муҳим корреляциялар аниқланди, бу ёшлар футболида позицияни танлашга шахсийлаштирилган ёндашувнинг мақсадга мувофиқлигини тасдиқлайди. Олинган маълумотлар спорт мактаблари ва академияларида позицион танловнинг илмий асосланган усулларини жорий етиш учун асос бўлиб хизмат қилиши мумкин.*
Калит сузлар: *Ёшлар футболи; рол; морфометрия; индивидуализация; спорт кўрсаткичлари; позицион танлов.*

Introduction. One of the key factors in the successful training of young football players is an adequate and timely choice of a playing position that corresponds to the individual morphofunctional and psychophysiological characteristics of the athlete. Positional specialization in youth football should be based not only on the subjective observations of the coach, but also on objective data reflecting the player's potential in various aspects - from physique to psychological stability [1, 3]. Recent studies have emphasized the need to use multifactorial models that combine data on morphometry, motor abilities of an athlete to optimize sports specialization [6, 7]. Such a comprehensive approach allows for the formation of a stable positional identity in a football player, reduces the risk of overtraining, and promotes growth in sports results [2, 4, 8]. A number of studies have shown that midfielders, for example, are characterized by the greatest endurance and cognitive flexibility, while forwards are characterized by high speed and reaction, and defenders by stability and strength training [5, 9, 10]. However, despite the existence of individual studies on individual parameters, systemic approaches to personalized selection of roles remain poorly developed in the practical training of young football players. In the context of increasing competition in youth sports, especially in game disciplines such as football, an urgent task is the development and implementation of a differentiated assessment system that allows for the effective distribution of athletes by game roles at early stages. This is especially important in order to improve performance. The aim of the study is to develop a method for individual selection of a young football player's role based on a comprehensive analysis of morphometric characteristics and indicators.

Materials and research methods. The study involved 55 young football players (aged 14–17) from the Odile Juniors and Lokomotiv sports academies in Tashkent. The players were divided into two groups: an experimental group (n = 23) that underwent comprehensive diagnostics, and a

control group (n = 27) that trained using standard programs. Morphometric and physical fitness monitoring included such indicators as anthropometry: height, body weight, and measurement of the Body Mass Index (BMI). Somatotype: assessment using the Levee, Manouria, and Scalley indices.

Results of the study. Based on the systemic approach, a comprehensive assessment of 55 young football players was conducted, including morphometric parameters. The purpose of the analysis was to identify reliable differences between athletes of different game roles and to evaluate the effectiveness of personalized position selection. The obtained data are presented in tables and are accompanied by statistical analysis reflecting both intra-positional differences and changes between the experimental and control groups.

Morphometric and functional indicators by positions.

Table 1.

Position	Height (cm)	Weight (kg)	Somatotype (Livy)	Sprint 30m (s)	Yo Yo IR1 (m)
Defenders **(N=15)**	178,3 ± 5,2	70,7 ± 6,1	2,34 ± 0,42	4,31 ± 0,19	1 854,6 ± 118,3
Midfielders **(N=20)**	175,8 ± 6,3	68,4 ± 5,2	1,98 ± 0,51	4,21 ± 0,18*	2 102,7 ± 148,9*
Forwards **(N=20)**	176,5 ± 5,4*	69,2 ± 5,8	2,12 ± 0,48	4,12 ± 0,12*	1 923,8 ± 127,5

*Note: * - significantly different from defenders at p < 0.05 (ANOVA + post-hoc tests).*

Table 1 presents the morphometric and functional parameters of young football players of different playing positions. The comparative analysis revealed statistically significant differences between the groups in a number of key parameters: According to the results of the 30-meter sprint analysis, midfielders (4.21 ± 0.18 s) and forwards (4.12 ± 0.12 s) demonstrated higher speed readiness compared to defenders (4.31 ± 0.19 s). The differences are statistically significant ($p < 0.05$), which confirms the role of speed as a determining criterion in assigning attacking positions. The Yo-yo IR1 (intermittent aerobic endurance) test showed that midfielders have better results (2,102.7 ± 148.9 m) than defenders (1,854.6 ± 118.3 m), which indicates a higher functional endurance of this group (the differences are statistically significant ($p < 0.05$)). The highest average height values were shown by defenders (178.3 cm), while forwards (176.5 cm) and midfielders (175.8 cm) were shorter.

However, differences between the groups for this parameter are statistically insignificant ($p > 0.05$)

Despite the observed tendency towards greater weight and a more pronounced somatotype in defenders, statistically significant differences in these indicators of body weight and somatotype (according to the Levy index) between playing positions were not established ($p > 0.05$). The data obtained indicate the presence of reliable differences in speed and endurance qualities between football players of different positions. Midfielders demonstrate the highest level of endurance, which makes them suitable for long-term intensive work on the field. Forwards and midfielders have better sprinting qualities, which is especially important for attacking actions. Height, body weight and somatotype play a supporting role in choosing a position and can be taken into account in the individual development trajectory of a football player, but no reliable differences in these parameters have been identified. Thus, speed-strength and aerobic indicators are justified criteria for individualized selection of roles for young football players.

Conclusions. Systematic assessment of morphometric, psychophysiological and metabolic parameters of young football players allows for a reasonable Art of Medicine Volume-5 International Medical Scientific Journal Issue-1 14 differentiation of game roles and identification of the functional correspondence of a specific position. Midfielders demonstrated the highest endurance (Yo-Yo IR1 - 2102.7 ± 148.9 m), metabolic power (14.5 ± 1.3 W/kg) and acceleration frequency, which confirms high physiological activity in the midfield. Forwards were distinguished by the best sprint characteristics (4.12 ± 0.12 s for 30 m) and high reactivity, which makes them most suitable for attacking functions.

Based on the work and research done, we came to the conclusion: - Using anthropometry and the Quetelet and Skelia index, we have determined the type of constitution and preferred roles of football players.

The developed approach can be recommended for use in youth football schools and academies as a tool for personalizing the training process, optimizing the playing role and preventing overtraining and burnout.

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