



COMPARATIVE STUDY OF SELECTED ANTHROPOMETRIC VARIABLES OF MALE FOOTBALL PLAYERS OF PUNJAB

Amanpreet Singh¹ & Amarpreet Singh², Ph. D.

¹Research Scholar, Department of Physical education, Punjabi University Patiala

²Assistant Professor, Department of Physical education, Punjabi University Patiala

Abstract

In the present study it was planned to compare the difference between humerus bicondylar diameter and femur bicondylar diameter of male football players of Punjab. The subjects for this study were from the National and Interuniversity level male football players of Punjab University Chandigarh and Punjabi University Patiala. For the purpose of the study, total number of 100 male footballers of Punjab state was selected as a subject. Which was further divided in to two groups (Defender and Striker) i.e. fifty each in group. The age of the subjects selected for the study have been between 18 to 26 years. To measure humerus bicondylar diameter and femur bicondylar diameter of selected subjects sliding caliper was used by the researcher. After the collection of relevant data; to investigate the significance difference between humerus bicondylar diameter and femur bicondylar diameter of defenders and strikers male football players of Punjab Mean, SD and t-test was applied. The level of significance was set at 0.05 percent ($p < 0.5$). After the analysis the results shows that there was significant difference between the humerus bicondylar diameter of national and interuniversity male football players of Punjab. Further there was significant difference between the femur bicondylar diameter of national and interuniversity male football players of Punjab.



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Introduction

In Football, a Defender's task is the keep the ball away from the goalkeeper prevent opposing attackers from passing or receiving and block shots. Defending requires a player to be well fit, hardworking and quick at anticipating the movement of the opponents. Defenders must protect the keeper, they should think of the goalie as an important that opponents are not allowed to get near to goal area.

Strikers are the most praised parts in the group, since they are regularly the ones who score goals. There are numerous kinds of forward. Exactness heading capacity and ball control are ordinary characteristics of a forward. A forward doesn't need to accomplish as much work as the midfielder or guard however he should be capable proselyte in to objective when his teammates give him the ball.

Football sports require a combination of speed and accuracy in various forms in order to generate a successful performance; however the act of kicking a ball accurately to a

specified target is arguably the most important skill to master. A footballer who is able to deliver a ball accurately over greater maximal and sub-maximal distances is a critical asset to their team. Modern soccer requires a much faster game, short response time, with less thinking and more demands with highly developed cognitive, functional and motor skills course. Anthropometry is widely applied in many scientific disciplines such as ergonomics and health science. Because of its convenience anthropometry is also used to understand the physical characteristics (performance) of the sportsman in the field of sports science which targets improvement of athletic performance. The assumption that anthropometric characteristics have influence on physical performance of the players have been proven in many studies. The reported results provide evidence for sports officials (coaches, managers) as well as for football players about the importance of anthropometry. Players are expected to have specific morphological and physiological attributes and can therefore, have successful ongoing careers. A significant correlation between body mass, muscle mass and work-rate profile has been established. A research for young soccer players showed that age and physical characteristics are important indicators of talented player identification and selection for the game. Although the importance of anthropometric parameters are recognized in the selection process and training of the players, there is a lack of precise and accurate published information for anthropometric characteristics of the players, especially for young players in the national league of our country.

Methodology and Procedure

In the present study it was planned to compare the difference between humerus bicondylar diameter and femur bicondylar diameter of male football players of Punjab. The subjects for this study were from the National and Interuniversity level male football players of Punjab University Chandigarh and Punjabi University Patiala. For the purpose of the study, total number of 100 male footballers of Punjab state was selected as a subject. Which was further divided in to two groups (Defender and Striker) i.e. fifty each in group. The age of the subjects selected for the study have been between 18 to 26 years. To measure humerus bicondylar diameter and femur bicondylar diameter of selected subjects sliding caliper was used by the researcher. After the collection of relevant data; to investigate the significance difference between humerus bicondylar diameter and femur bicondylar diameter of defenders and strikers male football players of Punjab Mean, SD and t-test was applied. The level of significance was set at 0.05 percent ($p < 0.05$).

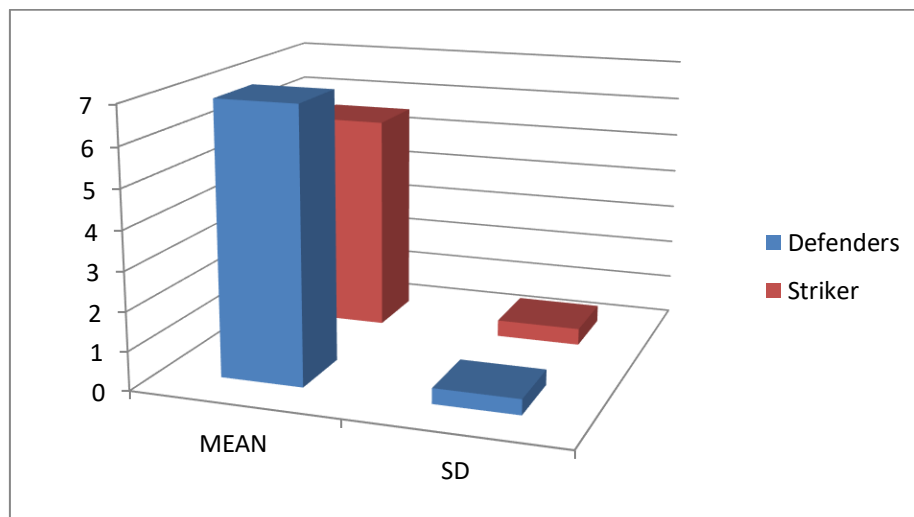
Results of the Study

Table no. 1: Comparison of Mean and SD for anthropometric variable of humerus bicondylar of defenders and strikers football players of Punjab state.

Components	Group	Mean	Sd	T- value
Humerus	Defenders	6.96	.40	
bicondylar	Striker	5.55	.43	-23.93

t.05 (98) = 1.98

Table no. 1 Shows that the Mean, SD and t – value for humerus bicondylar of defenders and strikers of football players. The table statistically reveals that the calculated t – value of humerus bicondylar -23.93 is less than table value 1.98. Hence it proves that there was significant difference between defenders and strikers of football players in anthropometric variable of humerus bicondylar. Furthermore the mean value shows that defenders were greater values of Humerus bicondylar in comparison of strikers of football players. The values of table no. 1 are also illustrated in Graph no.1.



Graph no. 1: Comparison of Mean and SD for anthropometric variable of humerus bicondylar of defenders and strikers football players of Punjab state.

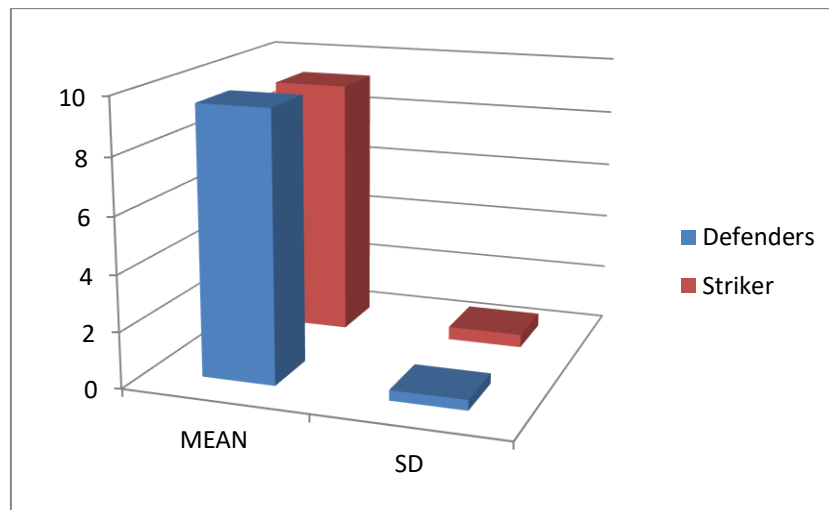
Table no. 1: Comparison of Mean and SD for anthropometric variable of fumerus bicondylar of defenders and strikers football players of Punjab state.

Components	Group	Mean	SD	T- value
Fumerus	Defenders	9.55	.37	
bicondylar	Striker	9.20	.47	-5.82

t.05 (98) = 1.98

Table no. 1 reveals that the Mean, SD and t – value for Fumerus bicondylar of defenders and strikers of football players. The table statistically reveals that the calculated t –

value of -5.82 were Fumerus bicondylar less than table value 1.98. Hence it proves that there was significant difference between defenders and strikers of football players in anthropometric variable of Fumerus bicondylar . Furthermore the mean value shows that defenders were greater values of fumerus bicondylar in comparison of strikers of football players. The values of table no. 1 are also illustrated in Graph no. 1.



Graph no. 1: Comparison of Mean and SD for anthropometric variable of fumerus bicondylar of defenders and strikers football players of Punjab state.

Conclusions

After the analysis of the data it was concluded that there was significant difference between the humerus bicondylar diameter of national and interuniversity male football players of Punjab. Further it was concluded that there was significant difference between the femur bicondylar diameter of national and interuniversity male football players of Punjab.

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