

Comparison of anthropometric parameters among Iranian and Spanish water polo players

Abstract

The purpose of this study was to compare the anthropometric parameters between Iranian and Spanish water polo national team players. **Material and Methods** — The research was conducted in the physiological laboratory of Isfahan Azad University. Participants who participate in this study were 44 male national water polo players (22 Iranian and 22 Spanish), age 22 ± 2 years old (Mean \pm SD). For the aim of this study twenty anthropometric parameters that was more important for water polo was measured and analysis. All the parameters were measured base on the international standard of anthropometric parameters (International Society for the Advancement of Kinanthropometry – ISAK). For analysis data, normal distribution of the data was proved by Kolmogorov-Smirnov test and then comparison between two groups was done by t-test. **Results** — The results showed a significant difference in seven anthropometric parameters contain body fat percentage ($P=0.031$), biliocrystal breadth ($P<0.001$), wrist breadth ($P<0.001$), chest girth ($P=0.021$), mid-thigh girth ($P=0.019$), palm length ($P<0.001$) and height ($P=0.032$). **Conclusion** — Spanish players with relatively higher underlying levels of anthropometric parameters compare to Iranian water polo players had stronger ability to control the ball with the bigger palm and bigger wrist breadth, also they had stronger ability to do water vertical jump, cause of higher value of biliocrystal breadth and mid-thigh girth and also stronger throwing the ball because of bigger muscle on their chest part of their body. However, Base on this study, having longer hands, more muscular body than fat and taller stature is an advantage for the players because it is considered to be a useful parameter in water polo.

Keyword: Anthropometry; National player; Water polo