

Comparison of Aerobic Fitness (VO_{2max}) of Cricket Players on Basis of Their Playing Positions

Lokendra Bahadur Kathayat and Ashok Kumar

Abstract

Aims: The purpose of this study was to compare the aerobic fitness (VO_{2max}) of cricket players on basis of their playing positions. **Materials and Methods:** There was one hundred fifty (N=150) trained male cricketers between the ages of 15 and 25 years volunteered for this study. An estimation of VO_{2max} was calculated from the test results, using standard formula (McArdle et al., 1972). **Results:** The mean age, height weight, BMI and VO_{2max} of batsman cricketer was 17.75 ± 2.88 year, 171.00 ± 6.56 cm, 57.00 ± 8.80 kg, 19.42 ± 2.22 kg/m^2 and 43.93 ± 8.65 $ml.kg^{-1}.min^{-1}$ respectively. The mean age, height weight, BMI and VO_{2max} of fast-bowler cricketer was 18.06 ± 2.43 year, 172.68 ± 7.50 cm, 59.16 ± 8.99 kg, 19.84 ± 2.99 kg/m^2 and 41.78 ± 7.55 $ml.kg^{-1}.min^{-1}$ respectively. The mean age, height weight, BMI and VO_{2max} of spinner cricketer was 17.88 ± 2.93 year, 169.40 ± 8.94 cm, 56.32 ± 10.45 kg, 19.54 ± 2.87 kg/m^2 and 43.96 ± 9.03 $ml.kg^{-1}.min^{-1}$ respectively. The mean age, height, weight, BMI and VO_{2max} of batsman/wicketkeeper cricketer was 17.00 ± 2.62 year, 170.70 ± 7.49 cm, 56.80 ± 9.23 kg, 19.41 ± 2.31 kg/m^2 and 40.05 ± 8.76 $ml.kg^{-1}.min^{-1}$ respectively. The mean age, height, weight, BMI and VO_{2max} of all-rounder cricketer was 17.26 ± 2.33 year, 171.66 ± 8.09 cm, 57.66 ± 10.49 kg, 19.41 ± 2.74 kg/m^2 and 40.20 ± 6.08 $ml.kg^{-1}.min^{-1}$ respectively. The results shows that there was a difference in the mean values of VO_{2max} of cricket players on the basis of their playing position but it was not statistical significant. **Conclusion:** It was concluded that there was no difference of aerobic fitness (VO_{2max}) of cricket players on the basis of their playing position.

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Introduction

Cricket is one of the most popular team sports practiced around the world. During the season, elite male cricket players practice on a daily basis. The players play practice matches which include one or two matches per week, and take part in international tournaments such as ICC Champions Trophy, T20 World cup, Ashes Series, Champions League Twenty20, ICC Cricket World Cup etc. This important schedule of practices and games requires well developed physical, mental and physiological characteristics (Slimani et al., 2016). Aerobic Fitness (VO_{2max}) is one of the most important aspects of physical fitness component in cricket (Da Silva et al., 2008; Nikolaidis, 2011, Noakes and Durandt, 2000). In this context, optimum level aerobic fitness (VO_{2max}) helps cricket players to maintain repetitive high intensity actions within a cricket match, to accelerate the recovery process, and to maintain their physical condition at an optimum level during the entire game and season (Noakes and Durandt, 2000). Physical capacity of a cricketer is an important