



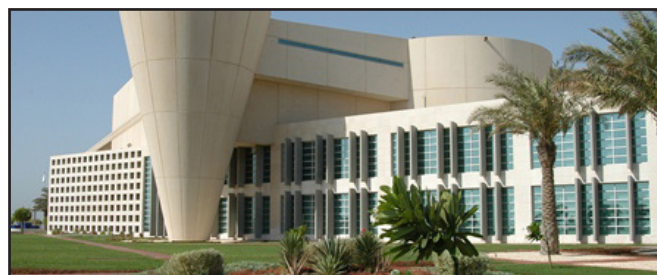
The Immune System Measurement: Effects of Small a Side Recreational Football

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Abstract:

Contradictory outcomes on effects of exercise on immune system and lack of research on long-term effects of football on immune system along with popularity of sport in Saudi Arabia motivated authors to examine the effects of four a side recreational football on serum immunoglobulin in untrained males. 27 male students from King Fahd university of Petroleum & Minerals with mean age 18.75 yrs were randomized into intervention (n = 8) and control group (n = 15). Three subjects from control group didn't report for post-test. Intervention group played recreational football for 16 weeks. Football sessions were conducted on 40x30m outdoor artificial pitch. Training sessions were organized twice a week. Each session was divided into two halves of 15 minutes with 5 minute recovery. Heart rate in intervention group was monitored during all football sessions using Polar FT7. Control group subjects followed their regular routine. Analysis of Covariance (ANCOVA) was employed to find difference between two groups after 16 weeks of football. Level of significance was set at .05. One way ANCOVA revealed significant differences between intervention and control groups after 16 weeks of recreation football in IgG (F 1, 17 = 6.47, p = 0.021). A significant change was also observed in IgM values between intervention and control group (F 1, 17 = 6.71, p = .019). However, no significant change was seen in IgA (F 1, 17 = .103, p = .752) between intervention and control groups after 16 weeks of recreation football. Our results were mixed and contradictory. Serum IgG increased significantly in intervention group after 16 weeks of vigorous football training (average heart rate 169.44 b/min), while serum IgM was decreased significantly after 16 weeks in the intervention group, and no change was observed in serum IgA. The long and vigorous training makes the immune system weak while short and mild strengthen it.



Biography

Dr. Rakesh Tomar has completed his PhD from Lakshmi Bai National University of Physical Education. He is currently working as faculty at King Fahd University of Petroleum & Minerals, Saudi Arabia. He has authored several publications in various journals and books. His publications reflect his research interests in exercise physiology, health and fitness. He is also an Associate Editor of The International Journal of Health, wellness and society, vol. 5(3), Editorial Board Member of Athens Journal of Sports. Dr. Tomar is serving as a board member for Asian Society of Kinesiology, Korea. He was principal investigator in 11 fully funded scholarly project and co-investigator in two. He also did research and contributed significantly in exercise psychology and sport sciences. He has over 100 publications and conference presentations across the world, more than 100 workshops and seminars, reviewed more 80 research papers in various journals, delivered more than 60 keynote and invited talk in several conferences across the world

Publication of speakers:

1. Luoma K, Riihimaki H, Luukkonen R, Raininko R, Viikari-Juntura E, Lamminen A. Low back pain in relation to lumbar disc degeneration. Spine. 2000 Feb; 25(4):487-92.
2. Tola S, Riihimaki H, Videman T, Viikari-Juntura E, Hanninen K. Neck and shoulder symptoms among men in machine operating, dynamic physical work and sedentary work. Scandinavian Journal of Work, Environment and Health. 1988 Oct; 14(5):299-305.

Webinar on Sports Medicine and Physiotherapy, August 29,2020 London, UK

Citation: Dr. Rakesh Tomar, The Immune System Measurement: Effects of Small a Side Recreational Football, Webinar on Sports Medicine and Physiotherapy, August 29,2020 London, UK