**Research** Paper

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## Variations between with and without ball aerobic trainings on selected physiological variables among football players

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## ABSTRACT

The purpose of the study was to find out the difference between with and without ball aerobic trainings on selected physiological variables among football players. To achieve this purpose of the study, 45 men football players were selected from Department of Physical Education and Sports Sciences, Annamalai University, Tamil nadu, India at randomly. They were divided into three equal groups of fifteen players each namely, aerobic training with ball group and aerobic training without ball group and control group. The group I performed aerobic training with ball, group II performed aerobic training without ball and group III acted as control who did not undergo any special training programme apart from their regular physical education curriculum. Group I and II were underwent their respective training programme for three days per week for twelve weeks. All the subjects of three groups were tested on selected criterion variables at prior to and immediately after the training programme. Analysis of covariance (ANCOVA) was used to find out the significant differences if any, among the groups on each selected criterion variables separately. The results of the study revealed that there was a significant difference between aerobic training with ball group and aerobic training without ball group and control group on selected criterion variables such as Vo<sub>2</sub><sup>max</sup> and forced expiratory volume. And there was a significant improvement as selected criterion variables namely Vo,<sup>max</sup> and forced expiratory volume such to aerobic training with ball and aerobic training without ball training.

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The aerobic system is the main source of energy provision during soccer match-play (Bangsbo, 1993). This is indicated both by measurements of physiological responses during games and by the metabolic characteristics of soccer players' muscles. The upper limit of the body's ability to consume oxygen is indicated by the maximum oxygen uptake or VO<sub>2</sub><sup>max</sup>. The VO<sub>2</sub><sup>max</sup> which represents an integrated physiological function with contributions from lungs, heart, blood and active muscles.

Aerobic refers to a variety of exercises that stimulate heart and lung activity for time period sufficiently long to produce beneficial changes in the body. Aerobics basically means living or working with oxygen. Aerobics or endurance exercises are those in which large groups are used in rhythmic repetitive fashion for prolonged periods of time. Running, swimming, cycling and jogging are typical exercises. Aerobic exercise means the exercise where all body parts muscles are supplied with enough oxygen with the increased heart rate.

Football is played as well as enjoyed by multitudes of people all over the globe. This is one of the most recognized sports. Football acquired popularity among the Indian masses within a short perod of time and is the popular as well as widely played Indian sports. Although the modern game of football had emerged in England, in its primitive from, it had undoubtedly been played for centuries in other centuries which claim that the game had been played in their countries from very ancient time, Soccer the game evokes an out pouring passion and emotion unparallel within the realm of sport (Roy, 1994).

## **METHODOLOGY**

The purpose of the study was to find out the difference between with and without ball aerobic trainings on selected physiological variables among football players. To achieve the purpose of the study, 45 men football players were selected from Department of Physical Education and Sports Sciences, Annamalai University, Tamil nadu, India at randomly. They were divided into three equal groups of fifteen players, each namely aerobic training with ball group and aerobic training without ball group and control group. The group I performed aerobic