INTRODUCTION

Soccer is a sports which involved lots of movements and skills with a high level of physical demand is require for match play, which involves speed, power, strength, agility, endurance flexibility, coordination, etc. Genetic potential, opportunities, incentive, rewarding experience and intensive training, skill, etc. are not only factors for soccer performance, there are lot more external and internal factors which affect a soccer player and make crucial difference in soccer performance.

Soccer is a game where anaerobic and aerobic capacity both is equally important. The activities of the game include shorts sprinting as well as casual recovery movements. Also the player has to cover a big area in the ground during attack and defence. With ball and without ball movement is an essential part of soccer game, therefore the game demands for aerobic as well as anaerobic fitness.

Body composition is one of the important factor for the fulfilment of the demand of aerobic and anaerobic energy, recently the scientist are interested on cellular body composition which include food staff, minerals, vitamin, water and other important organic and inorganic materials. To improve the soccer performance the information regarding cellular body composition is one of the focus area in soccer research.

Present researcher reviewed scientific data sources specially pubmed.gov, an authentic bio-medical research source. It was observed that there were many researches on aerobic power and soccer performance. May be due to methodological problem there were less research on anaerobic power and soccer performance. However the present researcher could not found any research work on cellular body composition and soccer performance and it relation with anaerobic and aerobic power. So the present research area was identified for this study.
AIMS AND OBJECTIVES

The aim of the present study was to report the status of cellular body composition, anaerobic and aerobic power of Indian soccer players. The main objectives of the study as follow.

i) To evaluate anaerobic power of district level Indian soccer players.

ii) To measure aerobic power of district level Indian soccer players.

iii) Collect data on cellular body composition of district level Indian soccer players.

iv) To establish a relationship between cellular body composition and aerobic and anaerobic capacity of soccer players.

NATURE AND SCOPE OF THE WORK DONE

This is a survey research and a status study of district level Indian soccer player. The scope of this research was to collect data on anaerobic and aerobic capacity of district level Indian football player. Another scope of the research work was to collect data on cellular body composition on district level soccer player. So the scope of this research varies on aerobic and anaerobic power and cellular body composition of Indian soccer player.

FINDING AT A GLANCE

The cellular body composition data of district level Indian soccer player was reported in the final study. The parameters were total body water, total body water %, extra cellular water, extra cellular water %, intra cellular water, intra cellular water %, extra cellular fluid, plasma fluid, interstitial fluid, dry weight
mass, extra cellular solid, body cell mass, extra cellular mass, protein mass, glycogen mass, mineral mass, total body potassium and total body calcium.

The anaerobic power was measured by 300 meter run and Sergent vertical jump (Sayer Method). The aerobic power (VO\textsubscript{2} max) was measured by Cooper test and Queen’s college step test. The aerobic and anaerobic power data was compared with National and International data. A correlation report of cellular body composition and aerobic, anaerobic power was also presented in the final report. It was observed a positive correlation between total body potassium and calcium with aerobic power.

CONCLUSION

It may be the first time in India cellular body composition data of soccer player was reported in this study. The aerobic and anaerobic power status of district level Indian soccer players was established in this research and it may be utilised as a reference data. The positive correlation between intra cellular water, extra cellular solid, total body potassium and calcium and aerobic may open new area of mechanism study.

CONTRIBUTION MADE TO THE BODY OF KNOWLEDGE

i) A reference range of cellular body composition of soccer player was established in this research.

ii) A reference range of anaerobic power of district level Indian soccer player was reported.

iii) Aerobic power of district level Indian soccer player and a comparison with other National and International data was reported in this research.
iv) Soccer fraternity as a whole and Indian soccer as a part may be benefited to know the status of aerobic and anaerobic power and cellular body composition of district level Indian soccer players.

v) Sports scientist may collect information and data regarding cellular body composition, aerobic and anaerobic power of soccer player.