habits. There is a minimal difference in measures of underweight and overweight among urban and rural areas. Obesity showed a big difference in boys and girls from rural areas with regard to urban locations.
DISCUSSION & CONCLUSION The results which are presented below represent the differences comparisons underweight, overweight and obesity, among different groups (urban and rural areas).
KEYWORDS Body Mass Index, overweight, obesity, children.

Body Composition and Somatotype in 10-18 year old male soccer players and their relation with athletic performance and soccer injuries

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OBJECTIVE Although there are some studies examining the somatotype and body composition in soccer players, their effects on athletic performance aren't clear. The aim of this study was to determine the body composition and somatotype profiles of young soccer players belonging to a Turkish soccer team participating in super league and to examine the relationship of somatotype and body composition to athletic performance and injury rates.
METHODS The sample consists of 122 male soccer players aged 10-18 years. The players were divided into 3 groups according to their ages: 1. 10-12 years 2. 13-15 years 3. 16-18 years. Somatotypes were estimated with the Heath-Carter anthropometric somatotype method and body compositions have been assessed using Tanita TBF 300 M. Participants performed a field running test starting with 8 km/h running speed, the speed increased by 2 km/h every 3 minutes until exhaustion and blood lactate concentrations were measured for each running speed. The running velocities corresponding to 4mmol.L_{-1} blood lactate concentration were determined. The injuries of all players were recorded through one year. SPSS version 15.0 was used for statistical analysis.
RESULTS The somatotype of 122 soccer players was 2.23±0.62 – 4.14± 0.86 - 3.24± 0.86 (ectomorphic mesomorph). The somatotypes of 3 age groups were respectively : (2.13±0.82 – 4.10±0.97 – 3.42±0.98), (2.11±0.56 – 4.09±0.97 – 3.44±0.86) and (2.38±0.51 – 4.22±0.87 – 2.96±0.72). There was a statistically significant difference in ectomorphy component between 2. and 3. groups ($p<0,05$). The body composition characteristics were fat % 9.69±3.80, fat mass 5.12±2.24 kg and fat free mass 48.86±13.05 kg. The reduction in fat percentage was significantly correlated with increase in age between 1. and 2. groups ($p<0.01$) and between 1. and 3. groups ($p<0.001$). The mean running velocity was 11.79±1.37 km/h. There wasn't any statistically significant relation between somatotype, body composition and running velocity. The injury percentage was 21.3%. There was no significant difference in somatotype between injured and noninjured players.
DISCUSSION & CONCLUSION The players in our study were more mesomorphic than the Turkish young soccer players in previous studies but less mesomorphic than their international counterparts. The low values of mean running velocities can be explained by the differences in training intensity and frequency, in addition to low mesomorphy ratings as well as the differences in method. There was no negative relationship between somatotype and injury rates. Training plans directed towards improving muscularity can be suggested for young soccer players.
KEYWORDS Somatotype, Body composition, Athletic performance, Sports injury, Soccer.

The physiological effect of football in prepubescent children

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OBJECTIVE Football as an invasive field game is characterized by intermittent activity profiles with a very important aerobic demands. VO_2max and the Ventilatory Anaerobic Threshold (VAT) have traditionally been considered as the "gold standarts" for evaluation of endurance performance. Most of the researchers in this matters says that the former is an indicator of greater fidelity in the characterization of aerobic power of an individual, as well as their level of fitness while the latter provides a better index of aerobic performance (1,2,3,4). However, when we talk about children they are very different from the adults. This study intends to know the physiological effect of a sport such as football in the prepubescent child from the same school and city.
METHODS Participants: 8 football players (FP - age: 11,73 ± 0,46; weight: 41,83 kg ± 9,35; BMI: 17,35 ± 2,07) and 10 non football players (NFP - age: 11,42 ± 0,46; weight: 43,20 kg ± 4,70; BMI: 19,10 ± 1,91) participated in this study. The entire sample was randomly assessed from the same city (Rio Maior, Portugal) and the same school. A maximal, progressive and incremental test using ergo-spirometry procedures (Cosmed® b2) were selected to test in laboratorial context. Heart rate was measured with the Polar S610. The comparison and descriptive data was analyzed between the