

# **The study of Anthropometric, physical and physiological characteristics of Iranian elite mountaineers with successfully their performance**

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**Abstract:** The purpose of this study was to investigate the study of characteristics of anthropometric, physiological and physical Iranian elite mountaineers with successfully their performance. Therefore, 38 climbers who managed to climb peaks over 5,000 meters had an average age of  $31/26 \pm 5/8$  (y), weight  $74/51 \pm 7/8$  (Kg) and height  $178/68 \pm 5/77$  (cm) ed for this study. To assessment the characteristics of anthropometric parameters height, weight, body fat, body mass index, the lower limbs, upper and lower limb length; To evaluate the physiological parameters aerobic capacity (12-minute running test), anaerobic power (anaerobic step test) and explosive power (Sargent test) and To evaluate the characteristics of physical fitness leg strength (one repetition maximum), speed (sprint 60 meters), upper body muscular endurance (push up) and the trunk muscular endurance (sit-ups test) were used. Mountaineers successfully summited peaks above 5,000 meters, according to the evaluation was during the last 3 years. By descriptive statistics for calculating mean and standard deviation data and Pearson correlation analysis was used to determine the relationship between the characteristics mentioned in mountaineers successfully. Results of the study showed a significant relationship between muscle strength and leg ( $R= 0/42$ ,  $P= 0/004$ ), Explosive power ( $R= 0/33$ ,  $P= 0/020$ ), anaerobic power ( $R= 0/48$ ,  $P= 0/001$ ), aerobic power ( $R= 0/38$ ,  $P= 0.009$ ), body fat Percentage ( $R= -0/28$ ,  $P= 0/04$ ), Upper body endurance ( $R= 0/31$ ,  $P= 0/02$ ), trunk endurance ( $R= 0/38$ ,  $P= 0/008$ ) and age ( $R= 0/37$ ,  $P= 0/01$ ) with mountaineers success.

**Keywords :** Key words: anthropometric, physiological, physical, success, mountaineers.

