Abstract

Title: Development of Czech achievements in jumping disciplines

Objectives: We focused on achievements of the best jumpers from the Czech Republic and the world including the junior category in disciplines of long jump, triple jump, high jump and pole-jump in period from 1993 to 2016. We observed the development of achievements in particular jumping disciplines and then compared them with top achievements in the world during this time period.

Methods: We observed and compared jumpers in disciplines of long jump, triple jump, high jump and pole-jump. We chose the 12 best jumpers from each discipline for each year. To have better clarity and more accurate analysis of data we worked then with group of best achievements, then with group of the average for top three, top six and top twelve achievements. We used basic statistical characteristics as the arithmetic average, frequency and standard deviation for the purpose of processing the results.

Results: The best achievements of jumpers were unaffected by whether or not a top event took place in that year. To be in the group of top 12 achievements (CZ) it was necessary to jump in a long jump about 759 cm for men and about 616 cm for women. In triple jump it was for men at least 15,35 m and 12,65 m for women. In pole-jump men should reach about 5,2 m and women then about 3,72 m. In the high jump the men should reach about 215 cm and women about 181 cm.

To be in the group of top 12 achievements in the world it was necessary to reach in the long jump distance about 835 cm for men and about 695 cm for women. In triple jump it was for men 17,48 m and 147,74 m for women. In pole-jump men should reach about 5,83 m and women then about 4,70 m. In the high jump the men should reach about 234 cm and women about 199 cm.

The Czech jumpers, junior category included, did not reach the world level with exceptions. These exceptions can be seen in the charts of trends in performance in the line of Czech maxims.

Key words: athletics, jumps, achievement, development, tendencies