

男子 400m ハードル走におけるレース中の歩数切替が タイムおよびピッチに与える影響

Effects of switching steps on time and stride frequency in men's 400m hurdle races

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【Abstract】

The purpose of this study was to clarify the influence of switching steps on time and stride frequency through the analysis of men's 400mH races, and to research the necessity of switching steps by the race strategy of Japanese athletes. The subjects were 15 Japanese men's 400mH athletes. We calculated the time and stride frequency in each interval from movies taken by video cameras or movies obtained from public Internet broadcasts of races. The stride frequency significantly decreased in the hurdle section after switching steps. Furthermore, the time changing rate of switching steps section was significantly higher in the section where the number of steps was switched than in the section where the same number of steps were taken in the next section. These results suggest that switching steps may have contributed to the decrease in performance due to the increase in time.

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