

## Abstract

- Title:** Monitoring and comparison of physical movement in elite female soccer players
- Objectives:** Determine and compare load and physical movement of the football players according to the team and playing position of each player. Determine differences between the physical motion of the players during the first and second half and difference according the results of the game.
- Methods:** The test group was consisted of 27 women's soccer players from SK Slavia Prague and National team of the Czech Republic. Measurement was made in 8 friendly games and one league game during the winter preseason 2018 (January – March). All the datas were collected indirectly with observation because all datas were collected by devices. Datas has been transfered to computer and they were processed. Data collection has been made with usage of GPSports devices and sportester „Polar T34“.
- Results:** The players of Slavia achieved higher motion load although there is a little difference between the results of researched teams. This is evidenced by distinction between average distance achieved ( $\bar{x} = 246,54 \text{ m}; 2,48\%$ ), as well as running in high intensity where the difference was 30.42 m, i.e. 2.92% and also the number of sprints plus repeated sprints were discovered in higher level at Slavia players (the difference in sprint was 10.65, i.e. 9.66% and the number of repeated sprints 52, i.e. 7.13%). The midfielders are the busiest players in the average total distance achieved  $\bar{x} = 10639,27 \pm 1075,82 \text{ m}$  and the wingers are the most sprinting players at all  $\bar{x} = 171,02 \pm 79,89 \text{ m}$  on the field. The highest average distance run ( $\bar{x} = 9792,83 \pm 945,84 \text{ m}$ ), but also the highest average sprint distance ( $\bar{x} = 147,20 \pm 90,88 \text{ m}$ ) occurred in the draw match. The highest movement load was achieved in the first half of match that is evidenced by the value of the average total achieved distance ( $\bar{x} = 5079,98 \pm 404,08 \text{ m} > \bar{x} = 4720,93 \pm 478,90$ ), furthermore by the average distance achieved in the high-intensity run  $\bar{x} = 10,56 \pm 3,07 \text{ m} > \bar{x} = 10,11 \pm 2,98 \text{ m}$  and also by the average sprint distance ( $\bar{x} = 67,05 \pm 48,81 > \bar{x} = 48,75 \pm 44,69 \text{ m}$ ).

**Keywords:** GPSports, monitoring, physical movement, female soccer