

ABSTRACT

The thesis elaborates the difficulty of flag football compared to floorball using heart rate measurements. Measurements for each sport were taken with six players in the age range of 18-37 years old for twenty minutes of the game. Players are active in these sports and were selected after consultation with coaches. The measured values were processed using statistical data analysis and presented through bar graphs. Five load zones were determined for data analysis, using Polar application. The first zone of 50% to 60% of maximum heart rate and each subsequent zone covered values ranging 10% higher. The measurements showed that floorball players reached a significantly higher average heart rate during the game, 153.1 ± 9.4 bpm, compared to the average heart rate of 131 ± 6.7 bpm achieved by flag football players. The floorball players also measured a higher average maximum heart rate, which was 190.5 ± 9.4 beats/min. In flag football players, this value averaged 173.8 ± 8.5 beats/min. Furthermore, the measurements showed that the flag football players spent significantly more time in the lower load zones during the game than the floorball players. Specifically, flag football players spent 25.2% of the time in the first zone, 32.8% of the time in the second zone, 28.5% of the time in the third zone, 12.2% of the time in the fourth zone, and 1.5% of the time in the fifth and final zone. Floorball players were significantly more likely to be in the higher zones, specifically spending 5.3% of their time in the first zone, 28.5% in the second zone, 25.2% in the third zone, 25% in the fourth zone and 15.3% in the last zone. In all cases, these differences were substantively significant. A statistically significant difference was found in the comparison of maximum and average heart rate, as well as in the first and fourth loading zones. In conclusion, it can be stated that a floorball match is more demanding than a flag football match according to heart rate.

KEYWORDS

floorball; flag football; physical load; heart rate; intensity