

Analysis of the throwing speed in the different positions in the field during the competition

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INTRODUCTION: The studies that analyse the throwing speed in the different positions in the field in high-performance handball are scarce. These contributions are nonexistent if the analyse refers to the throwing speed during the competition. For this reason, the objective of this research was to analyse the throwing speed in the central positions during the matches at the 23rd World Men's Handball Championship. **METHODS:** Three thousand two hundred and fourteen throws in the matches of this championship were analysed. The throwing positions analysed were the left back, the centre back and the right back. A radar (StalkerPro S.A., Plano), with a frequency of 100 Hz and a sensitivity of 0.045 m/s¹, fixed on a tripod behind the goal, was used. Analysis was performed using SPSS software (version 22). The variables were analysed with the Mann-Whitney U-test. Statistically significant differences were not found between all the throws carried out by the teams taking part in the championship. **RESULTS:** There are statistically significant differences in the throwing speed between the best 8 teams with respect to the other 8 teams of the championship in the central position in the first half of the match ($p > 0,05$), both for the total number of throws and the effectiveness (goal/not a goal). **DISCUSSION & CONCLUSION:** The best teams obtain higher throwing speed in the central position, but there is no difference in relation to effectiveness. Players may increase the throwing speed in the central position due to the concentration of a higher number of players in that area.

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