Physical Outcome in a Successful Italian Serie A Soccer Team Over Three Consecutive Seasons

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Abstract

Vigne, G, Dellal, A, Gaudino, C, Chemari, k, Rogowski, I, Alloatti, G, Wong, PD, Owen, A, and Hautier, C. Physical outcome in a successful Italian Serie A soccer team over three consecutive seasons. *J Strength Cond Res* 27(5): 1400–1406, 2013—The aim of this study was to examine the physical performance of a successful Italian Serie A team of more than 3 consecutive seasons. Twenty-five players participated in the study and were classified into 3 playing positions: defenders ($n = 9$), midfielders ($n = 11$), and forwards ($n = 5$). Activities match were studied by an analysis of multiple match camera SICS throughout the competition Italian Serie A matches played at home ($n = 90$) for 3 consecutive seasons (first: 2004/2005; second: 2005/2006; and third: 2006/2007). Total team ball possession and time-motion characteristics were examined. Results showed that total ball possession (52.1–54.9%) and the number of points accumulated at home (40/48) improved in the past 3 seasons, whereas the final rankings at home were stable. The total distances covered by minutes of play were significantly different between the 3 seasons (118.32 ± 6.69 m·min^{-1} to 111.96 ± 8.05 m·min^{-1}). Distance running and high-intensity activities were similar in the 3 seasons, whereas the distance covered in moderate-intensity running decreased in the third ($p < 0.05$). Variations between playing positions were found during the 3 consecutive seasons, with midfielders covering greater distances than defenders ($p < 0.05$) and forwards ($p < 0.01$). This study showed how for 3 consecutive seasons a Serie A team of successful players reduced their distances performed at submaximal speeds, and increased ball possession, while maintaining the high-intensity activities and the number of points at home. It is suggested that this is because of a better understanding of roles and tactics team organization and to act collectively and individually on these parameters to reduce energy expenditure during the game to maintain a high-level performance throughout the season.

Key Words elite football, seasonal variations, match play, time-motion characteristics, ball possession

Introduction

Soccer has been widely analyzed both by coaches and scientists throughout the previous 20 years to fully understand and define the precise activity of soccer players during elite competitive match play. In recent times, multiple cameras within semiautomatic systems are continually used to provide information about the tactical, technical, and physical implications within competitive match play for each player concomitantly (9–12,23). It was reported that male adult soccer players covered a distance ranging from 10 to 13 km during a game including ~3.2 km of walking, ~0.7 km of high-intensity activity, and ~0.25–0.4 km of sprinting (3,5,9,10,12,23,26). In the same context, the physical profile of elite Italian soccer players has been described by Vigne et al. (28) who suggested that players perform ~39% of walking (≤5 km·h^{-1}), ~30% of low-intensity running (>5 to 13 km·h^{-1}), ~13% of moderate-intensity running (>13 to 16 km·h^{-1}), ~8% of high-intensity running (>16 to 19 km·h^{-1}), and ~10% of very high–intensity running (>19 km·h^{-1}). Thatcher and Batterham (27) have added that players run backward for approximately 1.3 km during match play, which represents approximately 3.7% of the total activity; however, this type of action has recently been left out of the literature despite its importance in the movement characteristics of the game.

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