Prevention of Injuries Among Male Soccer Players

A Prospective, Randomized Intervention Study Targeting Players With Previous Injuries or Reduced Function

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ABSTRACT

Background: This study was conducted to investigate whether the most common injuries in soccer could be prevented, and to determine if a simple questionnaire could identify players at increased risk.

Hypothesis: Introduction of targeted exercise programs to male soccer players with a history of previous injury or reduced function in the ankle, knee, hamstring, or groin will prevent injuries.

Study Design: Randomized controlled trial; Level of evidence, 2.

Methods: A total of 508 players representing 31 teams were included in the study. A questionnaire indicating previous injury and/or reduced function as inclusion criteria was used to divide the players into high-risk (HR) (76%) and low-risk (LR) groups. The HR players were randomized individually into an HR intervention group or HR control group.

Results: A total of 505 injuries were reported, sustained by 56% of the players. The total injury incidence was a mean of 3.2 (95% confidence interval [CI], 2.5-3.9) in the LR control group, 5.3 (95% CI, 4.6-6.0) in the HR control group (P = .0001 vs the LR control group), and 4.9 (95% CI, 4.3-5.6) in the HR intervention group (P = .06 vs the HR control group). For the main outcome measure, the sum of injuries to the ankle, knee, hamstring, and groin, there was also a significantly lower injury risk in the LR control group compared with the 2 other groups, but no difference between the HR intervention group and the HR control group. Compliance with the training programs in the HR intervention group was poor, with only 27.5% in the ankle group, 29.2% in the knee group, 21.1% in the hamstring group, and 19.4% in the groin defined as having carried out the minimum recommended training volume.

Conclusion: The players with a significantly increased risk of injury were able to be identified through the use of a questionnaire, but player compliance with the training programs prescribed was low and any effect of the intervention on injury risk could not be detected.

Keywords: football; injury prevention; ankle injuries; knee injuries; hamstring injuries; groin injuries; risk factors; randomized controlled trial