

Prevention of injuries among male football players – a prospective, randomized intervention study targeting players with previous injuries or reduced function

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Abstract

Purpose: To examine the effect of targeted exercise program to prevent injuries in male football players with a history of previous injury or reduced function in the ankle, knee, hamstrings and groin.

Methods: A total of 32 teams (N=521 players) from 1-3. division clubs in the Eastern region of Norway were included. The players were tested in the early pre-season (Jan-March 2004) and screened by self-assessment (injury history and KOOS-based function scores for the ankle, knee, hamstring and groin). Players fulfilling our inclusion criteria (low function score or history of injury during the previous 12 months) were allocated to a group assumed to have an increased risk of injury. Players in this group (N=396) were randomized individually, and the high-risk intervention group (N=191) received one or more specific exercise programs targeting the relevant body part(s). They were instructed to use the training program 3 times weekly for a 10-week period during the pre-season, and once a week during the rest of the season. The high-risk control group (N=205) trained as usual. The remaining players (N=125), with normal function scores and no history of previous injury, served as a low-risk control group. All time-loss injuries were registered by the team physical therapist during the 2004 season (April-Sep), as were exposure data and compliance with the exercise program.

Results: A total of 225 acute injuries to the ankle (N=65), knee (N=62), groin (N=27) and hamstring (N=71) affecting 190 players (36%) were reported during the season. There was no difference in injury risk between the high-risk intervention group (82 injuries, 73 injured players, 38%) and the high-risk control group (112 injuries; 89 players, 43%, OR: 1.24 [0.83-1.85]). However, there was a significantly lower injury risk in the low-risk control group than the two other groups (31 injuries, 28 injured players 22%, OR: 0.47 [0.28-0.78] vs. intervention group, OR: 0.38 [0.23-0.63] vs. control group).

Conclusion: The introduction of a specific exercise program targeting players with a history of previous injury or reduced function in the ankle, knee, hamstrings or groin did not affect the risk of injury in high-level amateur football players.