PREVENTION OF ACL INJURIES IN FEMALE TEAM HANDBALL PLAYERS - A PROSPECTIVE INTERVENTION STUDY

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Introduction: A reduction in the rate of ACL injuries has been observed in soccer after the introduction of a preventive proprioceptive training program. Our aim was to assess the effects of a similar balance training program on the incidence of ACL injuries in female team handball players.
Methods: The incidence of ACL injuries was evaluated in 58 female teams (950 players) in the three upper divisions during the 98-99 season (control period). The coaches reported injuries, and the injured players were interviewed personally or by phone based on a standard questionnaire. A program with three different balance exercises focusing on neuromuscular control and planting/landing skills was developed, each exercise with a 5-step progression from easy to more difficult. The teams were visited once in the preparation period for the 99-00 season, and were supplied with instructional video, posters, six balance mats and six wobble boards. The teams were instructed to use the program three times weekly during a 5-week training period, and then once a week during the season. The number of ACL injuries was recorded again during the 99-00 season (intervention period) using the same methodology as the control season.
Results: There were 32 ACL injuries in the control season compared with 25 injuries in the intervention season (OR: 1.29 (0.74-2.27); P=0.35). In the elite division there were 14 injuries during the control season and 7 injuries during the intervention season (OR: 2.09 (0.76-5.90); P=0.12).
Conclusion: Although there was a positive trend towards fewer injuries in the elite division, a more intensive prevention program appears to be necessary to reduce the incidence of ACL injuries.