EFFECT OF A PREVENTIVE INTERVENTION PROGRAMME ON THE PREVALENCE OF AKP IN VOLLEYBALL PLAYERS

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Background: One of a common chronic knee disorders in athletic populations is the patellofemoral pain syndrome (PFPS) [1,2]. PFPS is a term believed to encompass all pain-related problems of the anterior part of the knee (AKP) [3]. A wide variety of treatment options have been proposed, but the exercise treatment protocols have not been properly documented [4]. Chronic knee disorders, such as patellofemoral pain syndrome and patellar tendinosis (PT), are common injuries in volleyball players. Therefore, the purpose of this study was to determine the effect of a 4-month in-season intervention programme on the prevalence of AKP in volleyball players.

Study design: A randomized clinical trial was set up to measure the effectiveness of an intervention programme (16 weeks, 2/week, on top of normal training routine) on the prevalence of AKP. The control group only executed their normal training routine.

Methods: For the processing of the results, the data of 151 participants were used, with 81 participants in the intervention group and 70 participants in the control group. The participants were measured pre- and post-intervention for intrinsic risk factors. The One-Sample Kolmogorov-Smirnov test (p<0.05), Mann-Whitney-U test (p<0.05) and Independent-Samples t-test (p<0.05) were used. The effectiveness of the intervention programme, using an intention-to-treat approach, was determined by calculating Odd ratios (OR) and their 95% Confidence Intervals (CI).

Results and conclusion: No significant differences were found between the intervention and control group after the intervention programme (OR = 1.58 [95% CI: 0.60-4.20]). Also, no significant differences were found in subjects with previously sustained AKP (OR = 0.81 [95% CI: 0.33-2.20]). Odds ratio (95% CI) reveal that the risk for recurrent AKP is significantly higher than the risk for newly sustained AKP (OR = 5.79 [95% CI: 1.59-21.00]). We could not prove any preventive effect of the intervention programme on the prevalence of AKP. However, a previous study using the same intervention and measuring the effect on the intrinsic risk factors of AKP, showed a positive effect.

References

Keywords: Prevention, Volleyball, Knee