

ABSTRACT

Thesis title: Effect of targeted training of the lower scapular fixators on the shoulder girdle function of rugby players

The concept of the problem:

Rugby is one of the toughest ball sports and there is no shortage of injuries. In addition, injuries in the shoulder area are among the most common and any possibility of reducing these injuries is beneficial. There is not much time left for compensation and targeted intervention; moreover, it is not usually led by physiotherapists but by fitness coaches and only in larger clubs. The consequence is a muscle imbalance in the shoulder girdle, which can result in the so-called scapular dyskinesis. This in turn affects the function and stability of the shoulder joint not only by the overhead athletes. It is possible to influence scapular dyskinesis in various ways. One of them is the inclusion of targeted training of lower scapular fixators into fitness training and thus their stability is improved.

Objectives:

The main aim of this thesis is to verify whether rugby players with painful shoulder have sufficiently scapular fixation based on kinesiological and biomechanical knowledge. Another aim of this thesis is to create such an exercise unit that would ensure the correct activity of the lower scapular fixators and verify this by measurement. The final aim is to prove that the correct scapular fixation will help rugby players to prevent shoulder joint injuries and improve the rugby skills.

Methods:

The theoretical background of the thesis describes the basic issues in the form of literary research. The practical part has the character of an experimental study, for which 12 players of the Czech extraliga male rugby in the age of 23 - 34 were selected, based on anamnestic questionnaire compiled for the purpose of this thesis. These athletes underwent a 6-week targeted training of the lower scapular fixators, which they performed three times a week. The effect of this intervention was evaluated by the LSST test, by measuring the length of the pass and by measuring the maximum strength of the upper limb in the pull of the pulley with the resistance in the direction of I. EXT and II. FLX diagonals.

Results:

During the thesis all hypotheses were confirmed. It was determined slight scapular dyskinesis before intervention program by LSST. Targeted training of the lower scapular fixators changed this fact and scapulars did not show the dyskinetic position. This training also tended to improvements in both the length of the passing and during the measurement of the maximum strength of the upper limb when pulling the pulley with resistance in the direction of I. EXT and II. FLX diagonals. This has shown that the correct scapular fixation has a positive effect on the shoulder girdle function of rugby players. At the same time, it is necessary to point out the differences between individual players' positions, especially among the forwards and backwards.

Keywords: rugby, shoulder girdle, scapula, lower scapular fixators, scapular dyskinesis, shoulder injury, prevention of injuries, physical therapy, kinesiology, biomechanics, targeted training, overhead athletes