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Mechanical injury of the knee joint with some football players as a basis for preventive training programs

presented by

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Research problem:

The multiplicity and the different situations that take detailed to make our study of the mechanical joint damage is an important factor in order to be able to study and analyze the most important conditions and factors associated with occurrence of injury, expected to occur where there is a capacity analysis of the most important conditions and factors associated with occurrence of injury, expected to occur where there is the ability of analytical science between the link development of certain specific injury, and identify the parts most vulnerable to injury in order to work to protect and guard against infection.

Through the attention of the researcher and survey the views of some coaches and players in football, it appeared that injury of the knee joint of more injuries common among football players, and is one of the main reasons to retire or aversion for early practice or continue in training or competition, with the importance of taking into account the would cost the player in football from a lot of money and a long time in training and competition until it reaches the international level, or global.

As the researcher conducted a prospective study (2008) for more injuries common among football players and that making an opinion poll of experts, which showed a high rate of injury of the knee joint between the players and the experts agreed that the injuries of the knee is the most injuries common among football players where I got the proportion of (" on mouseout "this .style. background Color (100%) of the total views

Here, researcher wonders about the possibility of proposing a training program is based on analysis of the muscles working on the knee joint for the prevention of infection?

The main research problem in being a scientific attempt aimed to identify the mechanical injury of the knee joint with some football players through the analysis of moves mechanically and muscle through the stages of performance skill free kick, to identify the most vulnerable situation of the joint, which is expected to infect, as well as determine the relative importance, and the proportion of the contribution of each muscle in the installation of the knee joint through the stages of performance, leading thus to lay the foundation of preventive training, thus contributing to the continued training and competition to reach the highest levels of sports.

Research Objectives

1. Identify the contribution of the working muscles on the knee joint during free-kick in soccer.

2. Identify the contribution of the working muscles in the movement of the arrest of the knee joint during free-kick in soccer.
3. Identify the contribution of the working muscles in the movement of the numerator on the knee joint during free-kick in soccer.
4. Identify the contribution of the working muscles in the movement of tweaking of the inside (during contraction) on the knee joint during free-kick in soccer.
5. Identify the contribution of the working muscles in the movement to roll out (during contraction) on the knee joint during free-kick in soccer.

Research questions:

1. What is the percentage contribution to the working muscles on the knee joint during free-kick in football?
2. What is the percentage contribution to the working muscles in the movement caught on the knee joint during free-kick in football?
3. What is the percentage contribution to the working muscles in the movement of the numerator on the knee joint during free-kick in football?
4. What is the percentage contribution to the working muscles in the movement of tweaking of the inside (during contraction) on the knee joint during free-kick in football?
5. What is the percentage contribution to the working muscles in the movement to roll out (during contraction) on the knee joint during free-kick in football?

Search procedures

Research Methodology

The researcher used the descriptive statistical method suits the nature of the research.

Research community

International players in football and who represent Kuwait in the international competition for football.

Sample

Selecting the sample to the number of deliberate manner (25) player of international players in football and the State of Kuwait who appeared at the international level were excluded (5) players to the use of non-attendance were the remaining number (20) for the player to conduct the baseline study.

Methods of collecting data

Through the frame of reference for the study and to inform the

researcher on the references and previous scientific studies in the field of study, the researcher to the working muscles on the knee joint and follow the researcher the following steps to conduct the baseline study: -

Design the questionnaire, following the following: -

1. Identify the views of experts on the muscles and ligaments in the working stages of the performance of free-kick in football and its impact on the mechanics of knee injury
2. The use of a personal interview to display the form on the experts
3. Measuring the working muscles in the stages of the performance of free-kick:
4. Define the basis of the training program the protective muscles and ligaments of the working stages in the performance of free-kick in football
5. View the training program the protective muscles and ligaments in the working stages of the performance of free-kick in football to the experts
6. Training program to draw the protective muscles and ligaments in the working stages of the performance of free-kick in football, according to the opinion of experts
7. A basic study

The baseline study:

The researcher proposed the application of preventive program in for 8 weeks in the period between 06.06.2010 to 29.07.2010, by number (2) Training in the week and the total (16) training time Altdreb (30) minutes before the start of basic training for the players in football, and total application of the training program of preventive (480 minutes).

Measurement pre and post:

Was a measurement of the tribal players in the sample period of 4 - 06.05.2010 and post in the period from 30 - 31/07/2010 and the same specifications and conditions of tribal measurement.

Conclusions:

Mechanical knee injury

Movement arrested

Are arrested movement of the muscles working on the knee joint through the stages of the performance of free-kick in football through the muscle of the four headers (femoris) muscle and the half string muscle and the muscle and the twin Almqdip and Tensor scabbard thigh muscle and the plantar

Predictive equation to capture the movement of the muscles

working on the knee joint are:

The working muscles in the movement of arrest to stabilize the knee joint through the stages of the performance of free-kick in football = muscle with four heads (femoral) (35.48%) + muscle Almqdip (21.31%) + muscle twin (15.36%) + Tensor scabbard thigh (12.74%)

Movement of the numerator

Numerator is the movement of the muscles working on the knee joint through the stages of the performance of free-kick in football through the rectus femoris muscle and the vastus medialis and vastus lateralis muscle and the vastus intermedius and Tensor thigh scabbard.

Predictive equation for the movement of the numerator of the muscles working on the knee joint are:

The working muscles in the movement of the numerator of the installation of the knee joint through the stages of the performance of free-kick in football = musculus rectus femoris (24.37%) + vastus lateralis (21.34%) + vastus medium (21.72%) + vastus Alhadp scabbard thigh (21.42%)

Twisting movement of the inside (during contraction)

Roll is movement of the inside (during contraction) of muscles operating at the knee joint through the stages of the performance of free-kick in football through the sartorius muscle and the muscle membrane and half muscle Fine

Predictive equation for the twisting movement of the inside (during contraction) of muscles operating at the knee joint are:

The working muscles in the movement of tweaking of the inside (during contraction) to install the knee joint through the stages of the performance of free-kick in football = sartorius muscle (32.46%) + muscle membrane half (27.45%) + muscle Fine (6.13%)

Twisting movement of the outside (during contraction)

Movement is twisting to the outside (during contraction) of muscles operating at the knee joint through the stages of the performance of free-kick in football through the biceps (femur) and muscle and big muscle Alolier Alolier medium and micro-muscle Aliliep

Predictive equation for the twisting movement of the outside (during contraction) of muscles operating at the knee joint are:

The working muscles in the movement of tweaking to the outside (during contraction) to install the knee joint through the stages of the performance of free-kick in football = Biceps (femoris) (34.25%) + muscle Alolier major (25.38%) + muscle Alolier medium

(16.24%) + muscle Aliliep microprocessor (14.74%)

The working muscles of the knee joint during the installation phases of the performance of free-kick in football as a basis for preventive training programs, respectively, are: -

- | | |
|----------------------------|---------------------------------|
| 1. Biceps (femoris) | 6. Musculus vastus intermedius |
| 2. Musculus Sartorius | |
| 3. Muscle membrane half | 7. Tensor of the femoral sheath |
| 4. Alolier major muscle | |
| 5. Musculus rectus femoris | 8. Muscle Almqdip |
| | 9. Vastus lateralis |

Predictive equation

The working muscles in the working muscles to stabilize the knee joint through the stages of the performance of free-kick in football as a basis for preventive training programs = Biceps (femoris) (35.48%) + sartorius muscle (34.25%) + muscle membrane half (27.45%) + Alolier major muscle (25.38%) + musculus rectus femoris (24.37%) + vastus medium (21.83%) + Tensor of the femoral sheath (21.72%) + Almqdip muscle (21.34%) + vastus lateralis (21.31%).

Equation codes are:

$$Y = x1+x2+x3+x4+x5+x6+x7+x8+x9+x10$$

Be the training program of preventive knee joint proposal which helps to avoid injury to the knee joint to the football players from a number (15) training.

Recommendations:

- Taking into account the mechanical injury during the phases of movement of the knee in the training of football players
- Use the predictive equation of the muscles operating at the knee serum
- Preventive use of the training program of the knee joint when the proposed training for football players, which helps to avoid injury to the knee joint
- Similar scientific research on different skills in football.
- Conduct scientific research similar to other sports