Chapter - I

INTRODUCTION

A minute to write a safety rule
An hour to hold a safety meeting
A week to plan a safety programme
A year to win a safety award
A lifetime to make a safe player
A second to destroy it all with one injury.

Modern Soccer has become very fast and put very high level of demands on specific fitness. Both, spectators and the players enjoy the game with a great amount of merriment. This difficult game involves constant action and continuous adaptation to the changing situations by the team as well as by individual players. Although it is a team game, but there is ample opportunity to display individual brilliance through technical efficiency and tactical knowledge. Soccer sends people from all over the world into frenzy, creates National and International heroes too, like Pele, the greatest from Brazil; Diego Maradona of Argentina, and Platini of France.²

In fact, Soccer is presently enjoying the position of the most popular sport, both with players and the spectators throughout the world. It is fascinating to watch the Mexican waves of enthusiasm that sweep over a crowd of spectators watching a game of professional soccer. In Britain alone millions of television viewers and spectators in the ground follow the league games every week. The same is true in most European countries\(^3\).

Injuries in sport occur as a result of physical activities carried out either for general recreational purposes or with more professional goals in mind. They may be caused by accidents during the match, or by over use of a body part, or as a result of strenuous training.\(^4\)

Most sport injuries are minor and would not prevent an average athlete from continuing his daily work. But, as the athlete becomes more seriously committed to sporting activities, stopping daily work is not only the consideration. The injury must be treated effectively so that sporting activity can be resumed at the earliest opportunity\(^5\).

Athletes playing at higher levels require not only correct diagnosis of their injuries, but also early treatment with complete healing so that they can

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\(^5\) Ibid.
continue to produce good performance within the shortest possible absence from their sporting activity. Even the more casual enthusiast, upon whom demands are not so great, may suffer both physically and psychologically as a result of minor injuries and he may be prevented from pursuing the sport.⁶

Progress in diagnosis and treatment system is rapid now- a- days with the advancement of Sports Medicine. Every injury, whether small or serious, needs a careful and planned rehabilitation⁷.

Sports science embraces many disciplines and Sports Medicine is one of these. A small section of Sport Medicine is concerned with injuries. It is intended for those who have to treat the consequences of the double epidemic of 'sports for all' and the expectation of good health. Cure, especially after severe and complex injury, may be imperfect and may take time to achieve complete recovery. This is especially important to the athlete at the peak of his career precaution and prevention are therefore, the wises counsel.⁸

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⁶ Ibid. p. 9
⁷ Ibid. p. 9
Medical influence on sports Industry has been on the increase and there are more consultations by the manufactures of sports equipments with those who are concerned with the treatment of injuries. The rewards are seen in the preparation of better playing surfaces, Winter Sport Courses, Sports footwear and equipments, such as, ski binding the better design of helmets, gloves and face, eye and tooth protectors etc., all have substantially reduced the incidence of injuries. 9

Injuries within the sports context are simply injuries as in any other field and their initial management is much the same. It is important, however, to appreciate the immense pressure placed particularly on top class competitions. There pressures are produced by high motivation, by Trainers, Teams, Clubs or Nation and are sometimes overwhelming. It is the responsibility of the medical advisor to protect the individual from him or herself and from the other pressure whilst restoring him or her to full fitness in the shortest possible time. 10

The wound needs nothing so much as to be left alone. The body's response to injury does not differ, whether the individual is a sports-person

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10 Ibid. pp. 17-18
or otherwise. The purpose is that the athlete be given preferential treatment; offer more appropriate management for the patient with high sporting aspirations, be they professional or amateur. It must always be remembered that an apparently trivial complaint may make all the difference between success and failure at the highest level. Awareness of the likely causes of injury, the methods of prevention, the injuries common to a particular sport of prevention, the injuries common to an particular sport combined with accurate case history and examination will facilitate precise diagnosis and correct management. In the phase of the rehabilitation, motivation and physical capacity will influence the speed of return to full fitness. Wolfe's law states that tissues respond to demands made upon them and will strengthen and enlarge accordingly. It is at this stage that the 'art of interference' is applied and protected exercise in mobile splints or cast braces will permit early mobility and allow some stress to be taken without damage.\textsuperscript{11}

The possible course of treatment available have been mentioned, but it must be stressed that expertise is all important and those who are responsible for the care of sports people, whether they may be medically qualified or

\textsuperscript{11} Ibid. pp.17-18.
not, must be warned against embarking on diagnosis and treatment beyond their ability, and indeed are liable in law if they make such an attempt at the expense of their patient's well being. Sound advice can always be obtained. The British Olympic Association has a panel of Medical Practitioners which includes experts in every specialty and Doctors from the Governing Bodies of almost all sports who being their special knowledge of the sport to bear on the problem in hand.\textsuperscript{12}

It has been said that a sport is a substitute for job satisfaction and contact sports, a substitute for war. Would that be so, Governments should recognize this and encourage their citizens by putting more financial resource into sports. It is so much cheaper than both war and the outcome of social unrest. Unwanted displays of dangerous aggression in contact sport seem to be on the increase. The sportsperson is not immune to a liability in law for willful injury to a fellow player, nor a Doctor for negligence in his or her treatment. Perhaps it is lime that those concerned with sports medical care have a say in the revision of the rules of the game.\textsuperscript{13}

\textsuperscript{12} Ibid. pp.17-18.
\textsuperscript{13} Ibid. pp.17-18.
Because of its worldwide appeal, the participants in soccer belong to all age groups and skill levels. Soccer presents to the sports medicine practitioners a wide variety of musculo-skeletal and medical problems. Injuries in game and sports increase in frequency as the age of the participants increases, with a low incidence of injury in pre-adolescent players. Musculo-skeletal injuries most commonly affect the lower extremities and include contusions, acute chronic musculo tendinuous strains, and ligamentous injuries to the knees and ankles. Most injuries are minor and respond to analgesics, therapy modalities and exercise therapy. Groin pain is a common problem and particularly prevalent in Soccer player owing to the game's specific stresses. Other less common but important injuries, include facial trauma, mild brain injury (concussion) and heat related injuries. Team Physicians, Athletes, trainers and Physical Therapists need to possess a basic to understanding of the most common injuries and problems in order to maximize safe participation for their athletes.¹⁴

The treatment of isolated medial collateral ligament (MCL) injuries has been subject to considerable evolution and diversity. Suggested treatment for these have include surgery, complete immobilization in plaster,

modified immobilization employing cast braces and Early Functional Rehabilitation (EFR) with rapid return to sports participation.\textsuperscript{15}

In the past, surgery or cast immobilization was considered the standard treatment for complete MCL sprains. A third form of treatment, which is known as EFR, has become increasingly popular over the last two decades. The cornerstone of EFR is minimal post traumatic immobilization and aggressive rehabilitation. The goal of EFR is to achieve final results equal to or better than those obtained with surgery of casting while minimizing the morbidity caused by the treatment and facilitating safe and early return to sports participation.\textsuperscript{16}

Many studies have focused upon the type of injuries and anatomical regions of the body most often injured in the young athlete. In general sprains and strains account for about 40\% of injuries, Contusions 25\%, Fractures 10\%, Concussions 5\%, Dislocations 5\% and others (unspecified) 15\% of all injuries. It is interesting that despite the various methods used to acquire injury date (self completed questionnaire, medical records of Clinic Visits, Insurance Claims). The varying definitions of injury and the basis

\textsuperscript{15} Ibid.p. 470.
\textsuperscript{16} Ibid. p. 470.
inherent in each, the composition of injuries in remarkably similar from study to study. These similarities are found in studies involving both Junior League players and high school players. The percentage distribution of injuries by region of the body injured and very similar across studies as well. Injuries of upper extremities account for about 30% of all injuries, while injuries to the lower extremities account for 50%. As with the injury type, the distribution by anatomical location is similar for both the Junior League and high school athlete.\footnote{JM. Robey, C.S. Blyth and F.O. Multer, "Athletic Injuries," \textit{American Journal of Sports Medicine} 8 (1980): P. 197-199.}

Soccer tends to be Associate with a high incidence of acute injuries arising from body contact conditions such as Fractures, Dislocations, contusions and wounds. While this impression may be an accurate picture at certain levels of sports. The Literature suggests that such injuries are in fact less common in experienced players. Overuse injuries tend to be associated with endurance sports, but one study of experienced players found that tenosynovitis constituted 23% of the total injuries. This result is in an
agreement with the risk of the field games to be the same per hour of exposure as it is in other sports.\textsuperscript{18}

Soccer is characterized as vigorous, high intensity, intermittent, ball and contact sport. The characteristics of soccer along with the required functional activities obviously place great demands on the technical and physical skills of individual players. A direct blow from a Soccer Players can also suffer from a range of overuse injuries associated with Running, Jumping, Pivoting, Heading and Kicking of the ball. The frequency of football injuries is estimated to be approximately 10 to 35 per 1000 playing hours. The majority of injuries occur in the lower extremities, mainly in the knees and ankles; the number of head injuries is probably underestimated. The average cost for medical treatment per football injury is estimated to be $150 (US. Dollars). Considering the number of active football players worldwide, the Socioeconomic and financial consequences of injury are of such a proportion that a prevention program to reduce the incidence of injuries is urgently required.\textsuperscript{19}

\textsuperscript{19} Mcgrath & Smith "\textbf{Heading Injuries Out of Soccer.}" Monash University Accident Research Centre- Report No. 125-1997.
The research scholar has been associated with competitive Soccer since his school days and later specialized in the same field during his Master of Physical Education. He has been encouraged with this grave problem of elite Soccer players and have considered it worthwhile to undertake the study so as to find out the common injuries in Soccer, their causes, treatment and rehabilitation which is necessary for the Players and for the sport of Soccer in order to avoid the injury and to protect their sports career.

**Statement of The Problem**

The purpose of this study was to conduct a survey on the most common injuries and their causes along with suggestions for a Graded Rehabilitation Programme among National Level Soccer Players.

**Delimitations**

In consultation with the Soccer and Sports Medicine experts, the present study was delimited to the following:

1. The study was delimited to senior National Level Soccer Players, who had participated in Santosh Trophy and Senior League Tournament
conducted by All India Football Federation. The study was delimited to Soccer coaches of the above teams.

2. The study was further delimited to those physiotherapists who sometimes or the other have treated injured Soccer players.

3. The study was also delimited to the questionnaire method.

**Limitations**

The study involved collection of relevant data information through a questionnaire which was administered to the respondent selected for the study. Hiding of information or furnishing incorrect responses by the subjects might have yielded distorted facts, which is also recognized as a limitation of the study.

**Definition and Explanation of Terms**

**Injury**

1. Injury is the result of the application to the body or part of the body of forces which exceed the body's ability to adjust to them.\(^{20}\)

2. An injury is defined as any incident that caused a player to leave a game, required a stoppage in play by the referee or player or resulted in the player requesting medical attention.\textsuperscript{21}

3. Injury is a wound or trauma; harm or hurt; usually applied to damage inflicted on the body by an external force.\textsuperscript{22}

All the above definitions are considered to be appropriate for the present study.

Treatment

1. The management of illness, or injury by the use of drugs, dieting or other means designed to bring relief of effect and cure.\textsuperscript{23}

2. Care by procedure or applications that are intended to relieve illness or injury.\textsuperscript{24}


\textsuperscript{22} J Langley, R Brenner, Injury Prevention Research Unit, \textit{Department of Preventive and Social Medicine}, University of Otago, New Zealand.


\textsuperscript{24} J Langley, R Brenner, Injury Prevention Research Unit, \textit{Department of Preventive and Social Medicine}, University if Otago, New Zealand.
3. Medical, surgical or cosmetic care, especially a systematic course.\textsuperscript{25}

All the above definitions are considered to be appropriate for the present study.

**Rehabilitation**

Rehabilitation is a treatment or treatments designed to facilitate the process of recovery from injury, illness, or disease to as normal condition as possible.\textsuperscript{26}

The above definition is considered to be appropriate for the present study.

**Significance of the Study**

1. The findings of the present study may help in finding out the types of common injuries which are prevalent among Soccer Players.

2. The study may also help in recommending the preventive measures in order to minimize the chance of injuries.

3. The study may help in finding out the commonly injured body parts of Soccer players.

\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid.
4. This study may help the Soccer coaches to develop safer training programmes which do not lead to any injury and that the players can give their best performances.

5. The study may also help in finding out the current trends in treatment and rehabilitation of injuries used by physiotherapist for the treatment of Soccer players.

6. The study may also reveal the attitude of players towards the treatment of their injuries provided by Organizers/Team Managements.