SUMMARY

The subject of this thesis is the results of early surgical treatment of acute ligamentous injuries of the medial compartment ligaments and the anterior cruciate ligament.

We reviewed the anatomy of the knee ligaments and the specific role of each ligament in stabilizing the knee joint.

The medial compartment ligaments mainly composed of the (a) superficial medial collateral ligament which is the principal stabilizer of the medial side of the joint against valgus stress, (b) the deep medial collateral with its menisco-femoral and meniscotibial portions which provide valgus stability and greater stability to internal external rotation and drawer motions, and c) the posterior oblique ligament which provides valgus, internal rotation and drawer stability to the knee in extension.

- The anterior cruciate ligament with its antero-medial and postero-lateral portions is the primary restraint against anterior tibial translation on the femur.

- According to the basic physiology of ligament healing the medial collateral ligament is considered a good healer ligament while the anterior cruciate is a poor healer.

- We dealt with forty eight cases of acute and subacute ligamentous injuris of the medial compartment ligaments and the anterior cruciate ligament. We have divided them into three groups:

Group A: of isolated MCL injury.

Group B: of isolated ACL injury.

Group C: of combined MCL & ACL injuries.

The mechanism of injury, the clincal and operative findings have been correlated for all the patients.

Injuries of the medial compartment in group A and C were managed by primary repair of the torn ligaments whether it was avulsion tear or mid-substance tear.

88.5% of the cases of anterior cruciate injuries were a mop-end tears and were managed by primary reconstructive techniques either intra-articular using the free patellar tendon or semitendinosus tendon passed over the top or extra-articular using iliotibial band

tenodesis or combined intra and extraarticular reconstruction.

Primary repair of the anterior cruciate ligament was tried only in three cases and it was augmented by extraarticular reconstruction using the iliotibial band in the three cases.

All the cases were subjected to a strict rehabilitation program ranged between three months for the medial compartment injuries and up to twelve months for the anterior cruciate ligament.

The results of the cases were assessed according to subjective, objective and functional criteria.

The final assessment gave a satisfactory rating (excellent and good) of:

86.36% in group A.

78.57% in group B.

83.33% in group C.

with total satisfactory rating of 83.33%.