SUMMARY

The menisci, or semilunar cartilage, are intra-articular crescentic portions of fibrocartilage situated at the periphery of the the upper articular surface of the tibia. Histologically, the menisci are composed of dense, tightly woven collagen fibres with a small amount of elastic tissue in between.

The menisci contribute to the following functions :

- Articular cartilage nutrition and joint lubrication.
- Stability of the knee.
- Movement of the knee joint.
- Shock absorption.
- Weight bearing and load distribution.

Various types of meniscal tears are encountered, although different kinds, and sites of tear frequently coexist. Cysts and complex lesions may also present, both in previously normal menisci and in congenitally abnormal or degenerate menisci. Meniscal tears will produce pain, loss of movement and instability of the joint. The relationship of these symptoms should be recognized. A torn meniscus produces joint line tenderness, often very localized, an effusion as well as locking. Positive McMurray and Apley grinding test is very valuable in diagnosing meniscal lesions.

Advances in arthrography, arthroscopy, computed tomography and magnetic resonance imaging have enabled the orthopaedic surgeon to diagnose and treat meniscal lesions, most often without arthrotomy and the incidence of errors in diagnosis has been reduced. However, arthroscopy is the most accurate, reliable and standard for the detection and treatment of meniscal tears, as its diagnostic accuracy reached 90 to 96%.

The realization that the meniscus has a valuable function within the knee, even if only the peripheral portion is present, has led to a more conservative surgical policy

when dealing with a tear. On the other hand, arthroscopy allows a more differentiated and conservative approach to meniscal lesions with less morbidity than the conventional open technique.

The goal of arthroscopic meniscectomy is to remove all ruptured and offending meniscal tissues with preservation of as much of an intact stable rim as is possible. No single method of endoscopic meniscectomy works best in every case. One must not think that there is any right or wrong way to perform an arthroscopic meniscectomy.

In general, the prognosis after meniscectomy is adversely affected by the following factors :

- Presence of osteoarthrosis.
- Presence of significant ligament laxity or other injuries.
- Other meniscus already removed.
- Extremes of age (poor results common in children and older people).
- Female sex.

Our results from the study of 157 cases of partial arthroscopic meniscectomy have shown that males were more commonly affected than females, the mean age of incidence of meniscal lesion was 29 years, the medial meniscus was more commonly affected than the lateral one and sport injury was the commonest causative trauma leading to meniscal injury.

Clinically, pain presented in 95% of cases, giving way in 42% and locking in 28%. On examination, joint line tenderness had the highest score of 80% presentation among our cases, followed by positive McMurray's test (64%), then joint effusion (63%) then positive Apley grinding test (52%).

The mean duration of joint illness among our cases at the time of the operation was 15 months. The mean operating time was 48 minutes. The mean hospital stay was 2.7 days.

Longitudinal tears were found to be the commonest meniscal lesion followed by flap tears then radial tears. Complex tear came the least in occurance. We did not encounter any case with cystic degeneration nor post-meniscectomy rim tears.

Satisfactory results were obtained in 142 (92%) of the cases (60% excellent and 32% good). Age and duration of illness had a significant effect on the final end result. On the other hand, sex and type of meniscal lesion as well as its location had no significant effect on the final result.

Partial arthroscopic meniscectomy as described in the present study with no intra-operative complications, only 6 (4%) minor post-operative complications (3 cases with stitch infection and 3 cases with haemoarthrosis) and early return to normal activity (mean, 20 days) and sports activities (mean, 8 weeks) adding to the high percentage of its satisfactory results, make the procedure to be the treatment of choice for a great majority of symptomatic meniscal tears.

Finally, our results suggested to perform partial arthroscopic meniscectomy as early as possible in symptomatic meniscal tears with careful evaluation of older patients.