SUMMARY

Knee stiffness has become increasingly recognized as a significant complication of knee trauma and surgery. The causes of stiffness may be extra-articular or intra-articular.

The extra articular causes include:

Stiffness after fractures of the shaft of the femur which may be due to damage and subsequent adherence of the quadriceps with subsequent fibrosis of some parts which prevent knee flexion. During knee flexion patellar excursion is prevented by fibrosis of the medial and lateral patellar expansions and adhesions between patella and femoral condyles. In some cases of a perfect union of femur fracture in an anteroposterior and lateral alignment it may show that the rotation has not been corrected and full extension or flexion may be mechanically blocked.

Intra articular causes include:

Adhesions between fibrous capsules, synovium , and bone or they may bind synovium to synovium as in supra patellar pouch there may be adhesions between menisci and fat pad of tibia , inlVapatellar contraction syndrome: this is a localized form of anterior arthrofibrosis, the so called Cyclops which reported after reconstruction of ACL , may be small fragments of bone retained with the joint in case of intra articular fractures.

Diagnosis of post traumatic knee stiffness by clinical examination by inspection of presence of any medial or lateral rotation especially in fracture femur there is loss of degree of motion, thichening may be palpable in supra pattellar pouch in cases with knee stiffness due to adhesions of capsule to the femur a adhesion in supra pattellar pouch, recurrent attachs of effusion usually follow activity of any kin in cases

with knee stiffness due to adhision of the menisci or the retropatellar fat pad to the tibia.

Plain x- ray, M.R.I and ultrasound can be used in diagnosis of knee stiffness.laboratory investigation by aspiratate pus if there is and bactereilogical examination, also increase E.S.R and c-creative protein are usually high.

Treatment of knee stiffness has generally involved closed manipulation under general anaesthesia.

The procedure will break down adhisions. If it is decided to manipulate, the procedure must be carried out with full muscular relaxation and the utmost gentleness. Contraindications of this procedure is the presence if any pathological process indicated by a "hot joint" , in presesne of any decalcification of the adjacent bones and in the presence of unsound union at femoral fracture site.

If surgery is contemplated then a major procedure such as quadricepsplasty is generally performed. Quadricepsplasty gives good results through aleteral approach the muscle is exposed and the tight compartment is divided employing an inverted V, as in bennett's operation.the knee is then simply immoblized in 90^0in flexion for 2weeks and active mobilization in hospital commences.

Another procedures can be used in treatment of knee stifness such as anthroscopy.the decision as to the need for an arthroscopic lysis of adhisions and the decision about timing for that procedure depend on several factors.

The basic indication for the procedure is functionally significant loss of motion and history indicating femur fracture and adhision of the quadriceps muscle.