

ANTERIOR CRUCIATE RUPTURES

I. Acute Ruptures of the Anterior Cruciate Ligament

There is a history of direct trauma to the knee of the patient or of an injury involving torsional or angular forces.

The Protocol for the management of acute injuries to the knee notes two separate sets of circumstances which require orthopaedic referral and, namely, these are “clinical evidence of gross ligamentous instability” and “the initial presence of a tense hemarthrosis or the development of a recurrent hemarthrosis.” These are diagnostic features of acute ruptures of the anterior cruciate ligament.

A. Diagnostic Tests

1. Plain x-rays to rule out associated fractures.
2. MRI – to confirm the diagnosis and/or to determine associated meniscal or ligamentous pathology.
3. Diagnostic/Therapeutic arthroscopy – to confirm the diagnosis and/or to provide initial or definitive treatment.

B. Outpatient Nonoperative Treatment

1. Aspirate knee
2. Analgesics
3. Compression dressing, ice application, immobilizer splint
4. Partial to full weight-bearing as tolerated
5. Physical therapy – initially a period of range of motion exercises followed by a progressive resistive exercise program
6. Question long-term bracing

Duration of this treatment program is 4 to 6 months

Probable outcome – clinical recovery with residual permanent partial impairment of function which may be mild (3%, 7%), moderate (7%, 17%), or severe (10%, 25%)

C. Outpatient Operative Treatment

1. One to four as above with an operative arthroscopy and debridement followed by five and six

Duration of treatment – 6-month minimum

Probably outcome – probably clinical recovery with residual impairment which may be mild (3%, 7%), moderate (7%, 17%) or severe (10%, 25%)

D. Inpatient Operative Treatment

1. Treatment measures as above followed by an open arthrotomy or arthroscopy with reconstruction of the anterior cruciate ligament
2. Surgical procedure followed by a period of total and then partial immobilization followed by a rehabilitative physical therapy program
3. Duration of treatment – 6-month minimum from the date of the surgical procedure

Anticipated outcome – clinical recovery with residual permanent partial impairment which may be mild (3%, 7%), or moderate (7%, 17%), or severe (10%, 25%).

II. Chronic Rupture of the Anterior Cruciate Ligament

Clinical features include a history of remote injury from which full recovery never occurred for which surgical treatment was either not done or was not successful. History of recurrent effusions and/or demonstrable instability with likelihood of secondary traumatic arthritic changes.

Nonoperative and operative options similar to those outlined for acute ruptures.

PROTOCOL HISTORY:

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