

INTRODUCTION

Patello-femoral joint affection and pain are important causes of presentation in the orthopaedic out-patients clinics. It affects different ages from infancy to the elderly.

The underlying aetiological causes for these diseases cover the whole scope of musculo-skeletal pathology ranging from congenital, traumatic, developemental, inflammatory, infective, degenerative, auto-immune etc.

As the orthopaedic science advances day by day more techniques for the diagnosis and treatment of Patellofemoral joint affections are developed. These lines of treatment ranges from conservative up to different surgical techniques of the patellar re-alignment, lateral retinacular release, patellar osteotomy, patellectomy, and patellar replacement.

With the recent advent of the use of the computer programs of artificial intelligence (A.I.), and decision support system (D.S.S.), it will be of great value to standarize the techniques for the patello-femoral joint affections so the learning orthopaedic surgeon will have a standraized methodology to follow in both the diagnosis and management, it will also help the orthopaedic surgeon to reach a proper logical dianosis and management plan.

ANATOMY

The patello-femoral joint is a part of the extensor or quadriceps mechanism. The patella, a large sesamoid bone, is anchored distally to the tuberosity of the tibia by the patellar tendon, superiorly to the tendon of the quadriceps femoris muscle, and by the medial and lateral retinaculæ to the joint capsule. These structures form a strong fibrous and bony cap for the anterior compartment of the knee.

The Femoral Condyles :

The patella articulates with the upper part of the articular surface of the femur. The patellar surface of the lateral condyle of the femur is normally more prominent than the medial. This prominence varies in size, it may be underdeveloped in patients who suffer from subluxation or habitual dislocation of the patella. The degree that the patella articulate with the femoral condyles varies depending on the amount of flexion of the knee joint.

The Patella :

The patella is divided by a median ridge into lateral and medial. The size of these varies in relation to each other. Depending on the ratio between them,