

INTRODUCTION

Anterior knee pain represent one of the most common musculoskeletal complaints, particularly among athletically motivated young adults (*Fulkerson J.P. ,1983*).

It is the disorder which represent a difficult & frustrating entity for the patient to endure & for the physician to diagnose & treat (*Goldberg B , 1997*)

Inability to demonstrate malalignment consistently on conventional radiographs even though the history and physical examination are strongly convincing of patellofemoral malalignment has contributed largely to the variation in the attitudes towards the management of patient with patellofemoral pain from cavalier("they all get better")to nihilistic("none get better") (*Schutzer et al, 1986*).

Both conventional radiographic measurements & CT measurements have been used to define & confirm the sometimes difficult clinical diagnosis of anterior knee pain secondary to patellofemoral malalignment , however , there are well recognised limitations of the conventional & axial radiographs of the patellofemoral joint in assessing patients with peripatellar pain particularly in the first 20 degree of knee flexion .For example,image distortion is inevitable if the central x-ray beam is not exactly tangential to the patellofemoral joint.Similarly,the proximal and distal articular surfaces will not be superimposed,making reliable analysis by any such method somewhat arbitrary Finally,without a consistent reference line , assessment of patellar tilting or lateral trochlear facet depth become entirely dependent on the assumption that external rotation of the hip has been controlled (*Schutzer et al , 1986*).

The importance of visualising the patellofemoral joint with the knee in the least possible flexion has been recognised by Laurine (Laurine et al, 1979).Although in

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thin individuals it may be possible to obtain "sunrise" patellar views with the knee in 20 to 30 degree of flexion. in practice, this is very difficult (*Scutzer et al, 1986*).

Therefore, routine radiographies are not consistently helpful in the evaluation of patients with presumed malalignment syndrome (*Insall et al, 1979*).

The capability of CT of producing midpatellar cross-sectional images at various positions of knee flexion and without distortion suggests that the CT scan would also be ideal for studying the patellofemoral joint (*Jones et al, 1995*).

Based on CT criteria of subluxation and tilt, it has become possible to categorize the patellofemoral tracking abnormalities (*Scutzer et al, 1986*).

CT diagnosis of patellofemoral malalignment has a specificity of 95% & sensitivity of 85%. Awareness of different patterns of malalignment is a significant advantage of CT when planning selective surgical realignment for these patients (*Jones et al, 1995*).