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SALIENT CLINICAL CONDITIONS MANIFESTING LATERAL KNEE PAIN

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ABSTRACT

Knee pain is a condition most often responsible for limiting the mobility and the quality of life in people with knee injuries. The causative factor could be an injury that involves either twisting the knee or pushing the knee out. It could also develop as a result of underlying pathological factors. This article is intended to shed light on some of the important clinical conditions that play a major role in the development of lateral knee pain.

KEYWORDS

Iliotibial band syndrome, lateral meniscus tear, lateral collateral ligament injury, lateral compartment osteoarthritis, popliteus tendinopathy, proximal tibiofibular joint instability,

INTRODUCTION

Knee injuries have been predominant within the lower limb. Pain in the knee is a common clinical presentation in people with knee injuries. Pain about the lateral aspect of the knee is a frequent problem commonly encountered in distance runners. Lateral knee pain can be caused either due to injury to the knee or due to underlying pathological conditions.

Knee pain about the lateral aspect of the knee is less commonly described and therefore the rationale of this current review is to comprehensively highlight various facets such as clinical prevention and diagnosis of some of the prime conditions causing lateral knee pain and for the better understanding of healthcare professionals.

ILIOTIBIAL BAND SYNDROME

It was first discovered by Renne in 1975 and with an incidence estimated between 1.6 and 12%. Etiology can be classified under 3 groups: "friction type syndrome" developed secondary to cyclic anterior posterior motion of ITB over lateral femoral epicondyle, "fascia lata compression syndrome " as stated by Fairclough due to the presence of highly vascularized, innervated adipose tissue between ITB and lateral aspect of femur, "inflamed bursa theory" as stated by Ekman due to the presence of fluid filled ITB bursa.Clinical presentations include pain and tenderness localized to the region of distal ITB and on palpation the presence of a "creak" sound and "wet leather" sound as described by Renne and Noble respectively. Three provocative tests include Noble test, Ober test, and Thomas test.

LATERAL MENISCUS TEAR

The second most common injury to the knee is meniscus injury with incidence of 12% to 14%. A sharp twist performed by an unbalanced load or high compressive force between femoral and tibial articular heads is the main cause. Clinical presentations include localized tenderness over lateral joint line, pain in the area of lateral joint line during knee hyperflexion or hyperextension, during internal rotation or a weakened or hypertrophied quadriceps. Special tests include McMurray test, Apley test and Thessaly test.

LATERAL COLLATERAL LIGAMENT INJURY

The lateral ligament injuries comprised 16% of all ligament injuries of the knee as stated in a study by Grana and Janssen. High energy blow to the anteromedial knee combining hyperextension and extreme varus force is the cause. Classified into 3 grades: grade 1: Mild Sprain, Grade 2: Partial Tear, grade3 : complete tear. Clinical presentations include sudden onset of lateral knee pain, swelling , ecchymosis and a thrust gait might also be evident. Special tests include varus stress test, Posterolateral Drawer Test, Reverse Pivot Shift tests.

LATERAL COMPARTMENT OSTEOARTHRITIS

About 7% to 10% of people with osteoarthritis have confused their diagnosis to the lateral compartment. Etiology can be idiopathic or secondary to trauma. Pattern of wear is posterior wear on the tibia and femur of lateral compartment. Knee pain on weight bearing is the classical feature. Stiffness, gelling of the joint are chief complaints. Diagnosis is confirmed by X Ray, Arthroscopy and MRI.

POPLITEUS TENDINOPATHY

It is seen as a gap in the popliteus tendon which may be caused by Overuse of the popliteus muscle tendon unit usually in athletes. Causes can be a direct varus force while tibia is externally rotated or a sudden forced knee hyperextension with tibia internally rotated. Patient complaints of lateral knee pain and tenderness at lateral epicondyle of femur along with redness and swelling. Pain can be reproduced by asking the patient to sit in figure 4 position.

Proximal Tibiofibular Joint Sprain Or Instability

First reported in 1874 and account for less that 1% of all knee injuries and occur either in isolation or in combination with other binh and ligamentous injuries. It occurs either as hypomobility or instability. Clinical presentations include outer knee pain aggravated by pressure over fibular head and prominence of fibular head, minimal effusion, limited knee extension, credits on knee movements, visible deformity, locking or popping, ankle movements provoking lateral knee pain and temporary peroneal nerve palsy.

CONCLUSION

Knee pain is a common complaint stated by people of all ages. However, it is important to accurately diagnose the clinical conditions causing Knee pain and this article briefly explains the various conditions causing lateral knee pain highlighting the clinical features and diagnosis. There is a scope for future research in areas of knee injury and its relationship with referred pain from different structures.

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