

Limbo-dancer's Bursa of the Knee

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Citation

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Abstract

Bursae around the knee are not uncommon and are divided into constant and adventitial based on origin [1]. Many bursae have been reported around the medial aspect of the knee but a literature search has produced only a definition in the Stedman's Medical Dictionary of an adventitial bursa in that region, this is known as the "Rider's Bursa" associated with horse back riding [2]. We describe a similar bursa that is associated with the Trinidadian art form of limbo dancing.

CASE REPORT

A 36 year old male Trinidadian presented to the clinic in 2005 with a six (6) month history of a painless lump on the left knee. The patient had taken up limbo dancing as a form of exercise approximately one (1) year previously. The lump would fluctuate in size but at the time of presentation its size had been constant for one (1) month. His past medical and family history were not significant.

Clinical examination revealed a spherical swelling, approximately 3 x 2cm at the level of the medial epicondyle of the knee Fig 1.

Figure 1

Figure 1



The overlying skin was normal and the lump was non tender, it was not attached to the skin but felt tethered to the deeper tissues. The lump was not pulsatile but was transilluminable in a bright light.

A radiograph of the knee showed no bony abnormalities but there was a well defined soft tissue shadow at the medial epicondyle. An ultrasound report was suggestive of a bursa showing a cystic lesion in the subcutaneous tissues with no connection to the knee joint.

The patient was informed of the nature of the swelling but declined surgical excision, at a routine follow up visit three (3) months later the swelling was reduced to approximately half its original size.

DISCUSSION

There are eleven (11) bursae around the knee, some are very well known to the clinician while others are less familiar. There are two types of bursae, constant and adventitial[₁]. A constant bursa is formed during embryological development and consists of a fluid filled sac that is lined by a synovial membrane, it normally lies between a tendon and bone or skin (e.g the pes anserinus bursa). An adventitial bursa is a developmental structure that is formed later on in life by myxomatous degeneration of fibrous tissue in response to stress at the site of friction between adjacent structures (e.g the bunion bursa)[₃].

At least four constant bursae are known to arise from the medial aspect of the knee, the pes anserinus bursa behind the tendons of sartorius , gracilis and semitendinosus, the bursa of the medial head of gastrocnemius, the bursa of the semimembranosus and the medial collateral ligament bursa (No-Name No-fame Bursa of Stuttle) which lies just behind the anterior border of the tibial segment of the medial collateral ligament.

Adventitial bursae around the knee are less common and a bursa around the medial epicondyle the so called "rider's

bursa" associated with horse back riding has already been well defined^[2]. This patient in whom there is no history of horse back riding, recalls that the swelling was noticed approximately one (1) year after beginning limbo dancing. Limbo dancing originated on the island of Trinidad in the 1950's, it is said to reflect the cycle of life. Limbo dancing is popular both as a tourist attraction but more recently has caught on as a novel way to keep fit on the island, dancers move to a Caribbean rhythm while trying to pass under a pole without touching it. The movement which involves hyperextension of the spine and hips with flexion of the knees and a significant valgus force on both the knees and ankles requires that the practitioner be reasonably flexible in order to negotiate the lower settings of the pole (Fig.2)

Figure 2

Figure 2



This extreme positioning of the joints has previously been associated with bursal formation of the hip joint, the 'limbo-dancer's bursa" previously described by Smith^[4]. In his description Smith attributes the bursa to either synovial herniation or mucoid degeneration of the hip capsule secondary to excessive forces.

In my patient the bursa may have formed either in response to constant friction between the medial epicondyle of the knee and the floor or by myxomatous degeneration of the fibres of the medial collateral ligament as it attaches into the medial epicondyle. I believe that the later explanation is more likely as the skin overlying the bursa was normal and not thickened.

To the best of my knowledge I believe this to be the only report of a bursa around the knee in association with limbo dancing. Under these circumstances, the clinical presentation is perhaps more aptly called "Limbo-Dancer's Bursa of the Knee".

References

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