

Anserine bursitis

*An under-diagnosed,
easily treatable cause of knee pain*

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The anserine bursa was initially called the no-name-no-fame bursa. The term anserine bursitis presently in use was coined by Moshcowitz in 1937, when he first described the condition.¹

The anserine bursa is located medially, 6 cm below the joint line between the attachment of the medial collateral ligament and the conjoined tendon (see Figures 1 and 2). Pes anserinus means “goose’s foot” and is the anatomic location of the conjoined tendons formed by gracilis, sartorius and semitendinosus muscles in the knee.² This article will provide an overview, including the clinical presentation and management.

Presentation

There are several bursae surrounding the knee, three of which commonly become inflamed and cause knee pain:

- the anserine bursa, located on the inner side of the knee
- the prepatellar bursa, in front of the patella
- the two infrapatellar bursae, underneath the patella

Anserine bursitis is used loosely to describe pain over the medial aspect of the upper tibia. This could arise from the medial collateral ligament, the anserine bursa and the pes anserinus insertion.³

Idiopathic bursitis occurs mainly in women because of their broad

pelvic area, which results in angulation at the knee joint, putting more pressure on the pes anserine attachment. Secondary causes include medial compartment osteoarthritis of the knee, obesity, direct trauma, abnormal gait, tight hamstrings and, less commonly, overuse injury, as in athletics.⁴

Clinical symptoms

Pain is localized to a well-defined area on the medial knee region over the upper tibia. Patients often point to the spot with one finger: The pain can be bilateral and nocturnal. It’s aggravated by climbing stairs, getting out of a chair and bending the knee. It may lead to the sensation of the knee “giving way.”

Exam and investigations

On physical examination, upon palpation, tenderness is elicited about 5-6 cm below the medial joint line at the level of the tibial tubercle. There’s no evidence of joint effusion, but there may be some slight swelling at the insertion of the medial hamstring muscles.

It’s often impossible to separate anserine bursitis from medial col-

lateral ligament injury or from pes anserine tendonitis. Certain provocative manoeuvres, however, may help:

- tenderness that extends from the anserine bursal area to the joint line is more likely due to inflammation or injury of the medial collateral ligament
- the supine valgus stress test, which is used to determine the integrity of the medial collateral ligament, should not aggravate the pain of anserine bursitis
- prone resisted knee flexion (hamstring contraction) may reproduce the pain of anserine bursitis
- in difficult cases, a local anesthetic block in the bursa can be used to differentiate the symptoms of bursitis from other etiologies. Relief of pain with the injection is diagnostic of anserine bursitis.

X-rays of the knee aren’t necessary to make the diagnosis. Plain films of the knee, though, including the sunrise view, are recommended to assess for secondary osteoarthritis.

Infections of the pes anserine bursa are very rare and occur in immunocompromised patients. A

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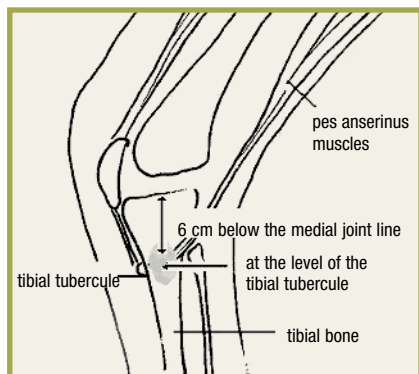


Figure 1: Cross-section of the thigh showing the anatomic location of the anserine bursa.

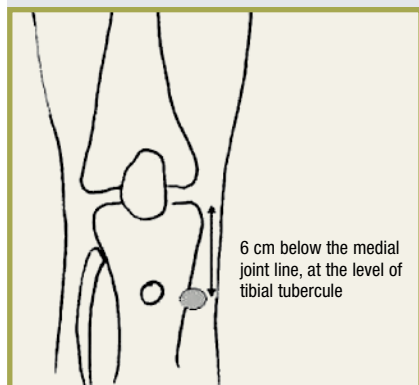


Figure 2: Anterior view of the knee, showing the location of anserine bursa.

standard workup for infection is required at that point.

Treatment

The goals of treatment are to reduce the inflammation and correct the underlying cause.

Conservative therapy

This consists of the following:

- restriction of activities — elimination of squatting and crossing the legs, and avoidance of direct pressure on the bursa (using a pillow between the knees at night)
- application of ice packs for 15-30 minutes every 4-6 hours to relieve pain
- knee protection with elastic bandage to relieve the swelling
- physiotherapy for hamstring stretching and strengthening exercises for the quadriceps muscles
- anti-inflammatory therapy, e.g. non-steroidal anti-inflammatory drugs, oral or topical, for 6-8 weeks.

All these modalities are evidence level 1C, i.e. no randomized controlled trial demonstrated efficacy.

Persistent symptoms

Most of the patients respond to conservative treatment. Failure to do so, however, may require a steroid injection — 0.5 mL of a local anesthetic plus 40 mg of methylprednisolone — inserted 6 cm below the medial joint line at the level of the tibial tubercle.³ Injection aftercare is critical for success. The individual should be advised to rest the joint for three days by avoiding direct pressure, squatting and repetitive bending. Ice packs should be applied for 15-30 minutes every 4-6 hours. Physiotherapy can be resumed by day 4. If symptoms persist, the injection could be re-

peated after 6-8 weeks. About 70% of patients injected experience significant pain relief.⁵

Surgery

Surgery is indicated if two consecutive aspirations and injections fail to eliminate swelling. Still, bursectomy is rarely required — less than 1% of cases.

Summary

Anserine bursitis is an under-diagnosed cause of knee pain. It can be ascertained by point tenderness and a negative valgus stress test, and is easily treated with anti-inflammatory drugs or a cortisone injection. **PE**

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