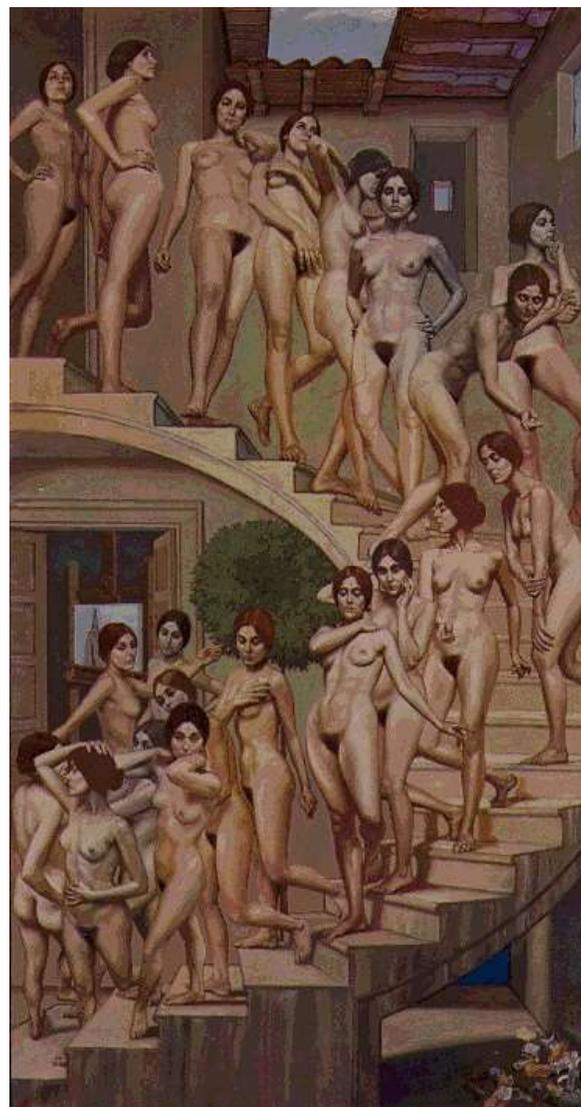


PES ANSERINUS BURSITIS



Above left: The Golden Stairs, oil on canvas, Edward Burne Jones, 1876-80. Tate Gallery London. Above right: Nude Descending a Staircase No. 2 Marcel Duchamp, oil on canvas 1913, Philadelphia Museum of Art, Philadelphia.



Above left: *Jacob's Spiral*, William Blake, watercolor, British Museum, London, c 1805.
 Above right: *Nude Descending a Staircase*, Hananiah Harari, oil on canvas 1975.
 Philadelphia Museum of Art, Philadelphia.

*"I felt impelled towards a renewed disposition of this subject made notorious with the uproar over Marcel Duchamp's entry in the 1913 Armory Show. The theme has since become generic, as have themes such as bathers, piping Pans, or reclining nudes. But my own statement would not or could not, be cast in Duchamp's cubist-futurist idiom. Serendipity led me to the Pre-Raphaelite Sir Edward Coley Burne-Jones whose painting *The Golden Stairs* suggested a scaffold for my own. His Victorian maidens, a saccharine demiseraphic troupe, were for me quite naturally no more embraceable than Duchamp's metallic robots. However the sweep of Burne-Jones' design provided my nude her stage. She makes entrance, then descends to diverse portraits comprising not only head, but body & temper - revealed step by step as it were, in shifting colors, light, and action. After "performing" in choreographed (sometimes mocking) descent, she exits below to Art and to the World. My debt to Burne-Jones is acknowledged in the lower right hand corner of my work, where his name can be seen on a crumpled candy-wrapper".*

Hananiah Harari (1912 - 2000)
Interviewed by Phil Beard and Chris Mullen, 1985

One of the recurring motifs of the modern art world over the previous century has been the attempt to capture dynamic movement on canvas. A favourite genre has been the figure descending a staircase. The history of this genre appears to date back to the Victorian pre-Raphaelite painter Edward Burne-Jones's stunning "Golden Stairs" of 1880. Right from the very beginning its meaning was intensely debated. Like much of Burne-Jones's works it remains obscure but it conveys a mystical, even spiritual feel. This mysticism is achieved by the figures – or perhaps it is actually just one figure captured at different points in time - descending from a "higher heavenly plane". This image has its roots in an even older tradition that can be traced back to the Eighteenth Century works of William Blake. His "Golden Age", reflects an almost religious image – the last vestige of a still yet earlier time - a relic in the age of Enlightenment. In ancient times many cultures symbolized the route to Heaven as a spiral staircase. Souls made their journeys to Heaven via a long and winding path. As far back as the Fourteenth century, Dante depicted the journey of the souls in Purgatory, as taking place along a vast mountain pathway spiraling ever upwards towards Heaven. In many other cultures the spiral shape is symbolic of the soul's journey after death. The motif is widely seen in ancient Oceanic art, carved into door handles, or canoe prows or more recently as tattoos on the body. To the Maori the spiral represented creation, and in Polynesia, immortality.

The Twentieth century ushered in the modern secular age in much of the West. The cubist and surrealist Marcel Duchamp reinvented the figure descending the spiral staircase in his "Nude Descending a Staircase" in 1913. Extremely controversial in its day – it striped away all suggestion of mysticism or religion. The figure is reduced to a cubist, almost mechanical contraption of the early modern age - its purpose, no longer spiritual, but rather a scientific study of movement. In 1975 the New York artist Hananiah Harari produced his version of the genre of the figure descending a staircase. Hyper-real, it is an image of the contemporary art world. The figure now is clearly depicted as dynamic in time – she descends the stairs conveying the sense of movement. Its meaning, like Burne-Jones's original work conveys more of a feeling than an event. Harari acknowledged his debt to Burne-Jones in the "scaffolding" of his work by placing his name on a crumpled candy-wrapper at the bottom right of the picture. He could not embrace Duchamp's purely scientific, "mechanical" figures, nor the "Victorian saccharine demi - seraphic troupe maidens" of Burne-Jones - but he did wish to convey a feeling of movement and like Burne-Jones and Blake before him - a psychological dimension. Rather than the mysticism of his predecessors however we see an erotic "choreographed" - sometimes "mocking" descent.

It is a truism that all art remains in the eye of the beholder. If we look at these works detached from mysticism, religion, or eroticism our trained eyes may suggest an underlying medical image. The dynamic and athletic model in Harari's work suggests more the modern day cat-walk than any "Heavenly spiral". On the level this is a fairly un-taxing activity, but on a spiraling staircase the model risks the repetitive strain injury of pes anserinus bursitis!

PES ANSERINUS BURSITIS

Introduction

Pes Anserinus bursitis (also referred to as pes anserine bursitis) is a surprisingly common condition, that presents to the ED.

It is often misdiagnosed as other conditions, as the diagnosis is not often considered.

It is an inflammatory **bursitis** of the **medial** knee at the insertion of the pes anserinus common tendon.

It is common in athletes, but may also be seen in certain groups of non-athletes.

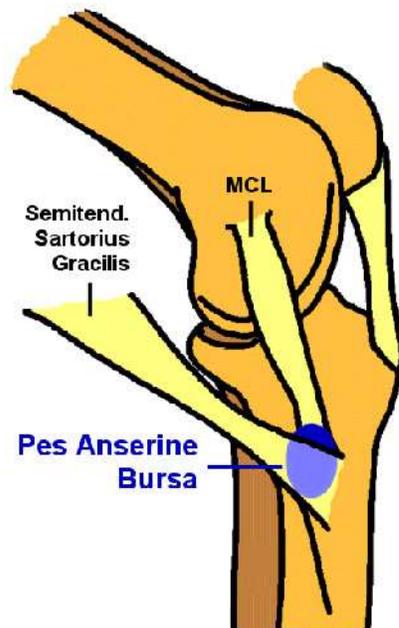
It often coexists with other knee disorders.

Pes anserine bursitis is primarily a self-limiting condition, which usually responds well to an rest and physiotherapy.

History

Pes anserinus bursitis was first described by **Moschowitz** in the 1930s as an inflammatory condition of the pes anserine bursa.

Anatomy



Left: The Pes Anserine Bursa, Right: the surface anatomy location of the bursa.

Pes anserinus is the anatomic term use to identify the insertion of the **conjoined tendons onto the anteromedial proximal tibia.**

From anterior to posterior, the pes anserinus is made up of the tendons of the:

- **Sartorius muscle**
- **Gracilis muscle.**
- **Semitendinosus muscle.**

The tendon's name which literally means "goose's foot" from the Latin, was inspired by the pes anserinus's webbed, footlike structure.

The conjoined tendon lies superficial to the tibial insertion of the medial collateral ligament (MCL) of the knee.

The pes anserine bursa is situated between the pes anserinus (ie, the gracilis, semitendinosus, and sartorius tendons) and the upper tibial metaphysis.

Epidemiology

In one review of MRI scans of symptomatic adult knees suspected of having an internal derangement, evidence of pes anserinus bursitis was evident in 2.5%.¹

Another clinic reported finding pes anserine bursitis in 41 of 68 patients who were referred for presumed osteoarthritis of the knee.¹

Pathology

Risk Factors

Pes anserine bursitis is commonest among:

1. Athletes, especially basketballers, soccer and racket sport players

In non-athlete settings it may also be seen in:

2. Obese middle-aged women.
3. Diabetics.
4. Co-existence with osteoarthritis of the knee in older individuals.
5. Valgus knee deformity, alone or in combination with collateral instability

The condition is more common on the right side than the left.

Approximately one third of patients have bilateral involvement

Clinical Features

Important points of History

1. Pain:
 - There is typically pain over the medial knee
 - Pain is *particularly* exacerbated with:
 - ♥ **Ascending or descending stairs.**
 - ♥ Rising from a seated position.
 - Patients typically do **not** experience pain when walking on level surfaces.
2. Swelling:
 - Some mild local swelling may be noted.

Important points of examination

1. Tenderness:
 - The hallmark finding is tenderness over the proximal medial tibia at the insertion of the conjoined tendons, approximately **2.5 cm below the anteromedial joint margin of the knee.**
 - There is no tenderness at the joint line itself (unless there is another coinciding condition)
 - Resisted flexion of the knee will generally *not* reproduce the pain (unless there is a coexisting pes anserinus **tendonitis**)
2. Crepitus:
 - Palpable crepitus consistent with bursitis is occasionally observed
3. Knee movements:
 - The overall range of knee movement is generally not restricted
4. Overt signs of inflammation, with cellulitic skin changes suggest an *infected* bursa.

Differential Diagnosis

MCL sprain exhibits pain on valgus stressing of the knee and tenderness more proximally on the MCL tendon.

Medial meniscus injury presents with medial joint line tenderness, knee locking and/ or catching. The McMurray test (Valgus stress and external tibial rotation) is also generally positive)

Investigations

The diagnosis of pes anserinus bursitis is usually made on **clinical grounds**.

Plain radiography

This cannot diagnose the condition of pes anserinus bursitis, but it may be useful for ruling out alternative differential diagnoses.

Ultrasound

This may aid in diagnosis, however it is not a very *sensitive* investigation.

MRI

This is the best way to image the bursa but is rarely necessary, as the diagnosis is usually readily made on clinical grounds.

Management

Pes anserine bursitis is primarily a self-limiting condition, which usually responds well to an rest and physiotherapy.

1. RICE - No-HARM
2. Anti-inflammatory agents:
 - A short course of NSAIDs is be reasonable in some cases.
 - Paracetamol is an alternative in those unable to tolerate NSAIDs
3. Injection Therapy:

Lignocaine injection:

- Inject 5-10mls of lignocaine to the point of maximal tenderness
- Relief is usually immediate
- Surprisingly lignocaine alone commonly produces prolonged benefit.

Depo-Medrol injection:

- Depo-Medrol (methylprednisolone) 20 - 40 mg can be added to the lignocaine to achieve a longer lasting effect.

Disposition:

Physiotherapy may assist by the use of various modalities.

A 6 - 8 week stretching and pelvifemoral strengthening exercise program alleviates symptoms in most patients.

References

1. Glencross PM: **Pes Anserinus Bursitis:** Occupational and Environmental Medicine, Physical Medicine and Rehabilitation, May 2018
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