Iliacus pyomyositis with involvement of lateral cutaneous nerve of the thigh

VS Pai MS Ortho, MCh, Registrar; E Yee, MB, BS, House Officer; D Lawson, FRCS, FRACS, Orthopaedic Surgeon; G Curtis, FRCS, Orthopaedic Surgeon, Memorial Hospital, Hastings.

Staphylococcus aureus to produce abscesses in a variety of organs is well known. Muscle, however, seems to be inherently resistant to infections. Pyomyositis is not uncommon in tropical countries.[1,2] It differs in many respects from other staphylococcal infections and therefore may be misdiagnosed. Because of its relative rarity in temperate climates, pyomyositis is not an initial diagnostic consideration in many patients and treatment may be delayed.

In this report, we describe a 74 year old patient with pyomyositis.

The patient

A 76-year-old woman presented with paraesthesia, including a tingling sensation, in the left gluteal area. This sensation radiated along the lateral aspect of the thigh to the knee. One week before the admission she had stepped down from a stool and landed with some force on her left foot. As she was unable to walk, her general practitioner treated her for acute disc prolapse with a course of antiinflammatory analgesics. The symptoms were aggravated by walking, sitting and forward bending. She was a nonsmoker, had been fit and well with no history of diabetes or cardiac disease.

On examination she was afebrile with hypoaesthesia over the anterolateral aspect of the thigh. There was no wasting or weakness of the leg. Straight leg raising test was at 60°. Reflexes were normal, as was the rectal examination.

Routine blood and urine tests were normal except for an elevated erythrocyte sedimentation rate (ESR 64 mm/h) and alkaline phosphate was 308 u/L. Fractionated ALP revealed this increase was of liver origin. Laboratory tests for myeloma were negative. X-rays of the chest, abdomen, lumbar spine and pelvis did not reveal any abnormality. Mantoux test was negative.

A week later, the pain became worse. Bone scan showed normal lumbar spine, sacroiliac joint and hips. However, there was slight increase uptake on the right hip and it was felt that this could be a nonspecific lesion or probably early Paget's disease. Needle biopsies of both ilia did not show any metastasis or myeloma.

On the 14th day, the pain was progressively getting worse. Computed tomography of the pelvis showed a mass originating from the iliacus (7 cm × 3 cm). Density of the muscle was lower than normal muscle. A provisional diagnosis of sarcoma of the iliacus muscle (Fig. 1) was made by the radiologist.

In view of CT findings it was decided to explore the retroperitoneum via left flank incision. The iliacus muscle was swollen and pale. There was about 5 ml of pus in the muscle substance. Underlying bone and sacroiliac joint joints were normal to palpation.

Specimens for histology and microbiology were taken. These showed an inflammatory cell infiltration. The cultures grew a growth of Strep milleri. Her symptoms settled with cefuroxime which was continued for 3 weeks.

No cause for infection was found. She was further assessed for possibility of infection from bowels and heart. All investigations were normal. Postoperative recovery was uneventful. At the time of discharge, she was mobile with a stick.

Discussion

Primary muscle infection is rare. Most abscesses of iliopsoas region are secondary to spinal tuberculosis, sacroiliac joint infection, infection of the abdominal viscera. In 1947, Traquir described 31 patients on the Gold Coast of Africa, reviewed the history of pyomyositis and emphasised that it was endemic in tropical Asia, Africa, South America, the Caribbean and islands of the Southwest Pacific.[3] In Uganda, 800 cases of pyomyositis were reported and accounted for almost 4% of all admissions to the surgical services.[4] Malhotra reported nine children who were treated for a primary pyogenic abscess of the psoas muscle.[5] All patients presented with fever when they were seen and clinically simulated a septic arthritis of the hip. They recommended an Ultrasonography to detect the lesion in the muscle. Recently, this has been frequently reported in temperate climates.[6]

The aetiology of a primary pyogenic abscess of the iliacus muscle remains speculative. Trauma with formation of a haematoma that becomes infected due to haematogenous seeding[7] has been proposed. Early diagnosis of pyomyositis is difficult because the inflamed muscle is usually deep, and classical inflammatory signs are often absent in the surrounding tissue.

Presence of an elevated ESR and persistent pain require a high index of suspicion of deep seated infection and should be investigated with a bone scan and CT scanning. Treatment consists of appropriate intravenous antibiotic therapy and abscess drainage.

Involvement of the lumbar plexus in a case of idiopathic infarction of the psoas has been reported.[8] In our patient there was evidence of pressure on the lateral cutaneous nerve of the thigh leading to pain and paraesthesia over the lateral aspect of the thigh.

The relative rarity in temperate climates and paucity of clinical signs make early diagnosis of pyomyositis difficult; consequently, appropriate treatment is often delayed.

Correspondence. Dr VS Pai, Memorial Hospital, Omahu Road, Hastings.

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Figure Legends

Fig 1. Computed tomography scan of the pelvis showing swelling of the left iliacus muscle.