CASE REPORT

New aetiology of patellofemoral pain syndrome

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SUMMARY

We report the case of a 30-year-old man with more than 100 different male sexual partners per year. He reported using cocaine, ecstasy, γ -hydroxybutyric acid and crystal methamphetamine and presented with bilateral gonalgia resistant to standard analgesia. He had no noteworthy medical history, and physical examination and laboratory tests were uninformative. MRI showed marked intra-articular effusion but no meniscus or ligament damage. The aetiological diagnosis in this case was made by excluding other potential causes. Patellofemoral pain syndrome (PFPS) is one of the most common and challenging injuries. In this first case reported, the aetiology was found to be mechanical, due to the position adopted during fellatio with multiple male partners.

BACKGROUND

We describe the first case of patellofemoral pain syndrome (PFPS) due to sexual activity.

CASE PRESENTATION

We report the case of a 30-year-old male hotel receptionist with more than 100 different male sexual partners per year. He reported using cocaine, ecstasy, γ -hydroxybutyric acid and crystal methamphetamine. His only noteworthy history was knee surgery following femoral fracture a few years previously, anal gonococcal infection one year previously and anal chlamydial infection 15 days previously (treated with doxycycline and azithromycin). He was immunised against hepatitis B. He was referred by his general practitioner, 10 days after the onset of bilateral gonalgia resistant to standard analgesia (paracetamol). The gonalgia first occurred on a Monday following a festive weekend. Local examination showed knee pain with normal mobility, bilateral patellar shock with normal overlying skin and no inguinal adenopathies. The patient subsequently reported performing fellatio, on his knees, for several hours with many different partners, a practice he had continued despite the knee pain.

INVESTIGATIONS

Standard laboratory findings were normal, with no inflammatory syndrome. Serological tests were negative for HIV, hepatitis C and syphilis. The PCR was negative for chlamydiae and gonococci on oropharyngeal, urinary and anal samples. X-ray findings were normal. MRI showed marked intra-articular effusion but no meniscus or ligament damage (figure 1).

DIFFERENTIAL DIAGNOSIS

Knee joint effusion may be a sign of patellar tendinitis, prepatellar bursitis, plica syndrome, Sinding-Larsen-Johansson syndrome or Osgood-Schlatter disease.¹ Patellar tendinitis was eliminated in our patient by the absence of subpatellar pain, while prepatellar bursitis was ruled out by the absence of adenopathy, fever and local inflammation. Plica syndrome is usually asymptomatic and is diagnosed by MRI. Sinding-Larsen-Johansson syndrome and Osgood-Schlatter disease have similar pathogenetic mechanisms and mainly affect teenagers. In Sinding-Larsen-Johansson syndrome, the pain is restricted to the lower pole of the patella and increases during flexion. Osgood-Schlatter disease is associated with intense knee pain during physical exertion and can be reproduced by extending the knee against resistance. MRI showed no intratendinous calcifications or tumefaction of the anterior tubular tuberosity in our patient.

OUTCOME AND FOLLOW-UP

The patient was symptom-free by the end of treatment, and follow-up MRI was therefore not performed.

DISCUSSION

The aetiological diagnosis in this case was made by excluding other potential causes. PFPS is one of the most common and challenging injuries.² It is due to cartilage inflammation, following contact of the posterior surface of the patella with the femur.³ The knee meniscus is a fibrocartilaginous mass interposed between the femoral condyles and the tibial plateau. Injury may be caused by (1) movement of a valgus knee, with flexion and external rotation of the tibia on the femur; the structures

Figure 1 MRI of the knee with intra-articular effusion.

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that oppose this movement are the internal lateral ligament, the anterolateral ligament and the medial meniscus; (2) movement involving varus extension with internal rotation; the structures that oppose this movement are the external lateral ligament, the internal posterior cruciate ligament and the lateral meniscus and (3) sudden rising after prolonged kneeling: the meniscus is

pushed forward by forced flexion and then recoils abruptly. The femoral condyle can cleave the posterior horn.

Pain is typically felt under or around the patella. It may be aggravated by activities with a high patellofemoral load, especially downhill walking, and by prolonged periods of flexion.⁴ Reported management options include exercise and physical therapy, rest, anti-inflammatory drugs and surgery.¹

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Learning points

- ▶ Patients' lifestyles, including their sexual behaviours, can provide important aetiological clues.
- ▶ Importance of addressing sexuality questions in specific population.
- ▶ Importance of interrogation of patients during clinical course including use of drugs and sexual practice.
- ▶ Extragenital diseases may occur due to sex marathon in men who have sex with men.

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