CASE REPORT

Hip pathology can masquerade as knee pain in adults

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Introduction

When patients have been seen by multiple hospital specialities over the same complaint, it is important to start at the beginning with an open mind, obtain a full history and perform a comprehensive clinical examination. We report the case of one such patient with a long history of complex and sometimes invasive investigations whose diagnosis was reached by a simple clinical examination and a plain radiograph.

A 71-year-old man was referred to the knee clinic with a 4-year history of severe progressive left knee pain. The severe constant unremitting pain in his knee radiated down the anterior aspect of his left shin. He complained of sleep disturbance and he was virtually wheelchair-bound.

An x-ray ten years previously showed Paget’s disease as affecting his left proximal tibia.

In the previous 4 years, numerous medical teams had extensively investigated his Paget’s disease and knee pain. Alkaline phosphatase levels and urinary markers for Paget’s disease were all within normal limits. The local metabolic bone unit performed a bone scan, which showed increased uptake in the proximal left tibia in keeping with Paget’s disease. A magnetic resonance (MR) scan of this area showed no evidence of sarcomatous change.

The patient was treated with courses of IV pamidronate and calcitonin without improvement and an intra-articular injection of local anaesthetic and steroid provided no relief. His pain continued to worsen and he was referred to the pain clinic, where he was given a TENS machine and commenced on opiate analgesia.

The patient was then referred to an orthopaedic team. Plain x-rays showed Paget’s disease in the tibia but a well-preserved knee joint. A further MR scan was performed, which confirmed Paget’s disease but no sarcomatous changes or stress fractures of the proximal tibia.

An MR scan of his lumbar spine was performed which revealed no obvious cause for the leg pain. Knee arthroscopy revealed only minor degenerative changes but these could not account for the severity of the symptoms. A second orthopaedic opinion was requested and an open tibial biopsy was performed. Histological examination of the 10 samples showed evidence of active Paget’s disease but no evidence of osteosarcoma.

The patient was subsequently referred to a clinical biochemist and underwent a further course of IV pamidronate without any relief of his pain. By this time, 130 mg of MST was required twice daily for pain relief.

The patient’s daughter, concerned at her father’s deterioration, consulted the Paget’s Disease Society and obtained a further opinion from another clinical biochemist. His opinion was that the Paget’s disease could not be responsible for the severe nature of the pain and suggested a further orthopaedic opinion from a knee specialist.

When we saw him, we felt his symptoms had an organic basis. Clinical examination proved to be somewhat difficult, as any limb movement caused severe pain. However, it was possible to determine that in addition to knee limitation, there was also marked limitation of hip movements, with a fixed flexion deformity of the left hip.

Further radiographs showed minor degenerative changes in the knee with Paget’s disease affecting the proximal tibia (Figures 1 and 2). An AP radiograph of his pelvis (Figure 3) showed severe degenerative changes in the left hip with almost complete loss of joint space superiorly.

To determine whether the hip pathology was the cause of his pain, he was admitted as a day-case for local anaesthetic infiltration of his left hip under x-ray control. The result was remarkable with immediate (but temporary) relief of his pain. He was able to walk unaided for the first time in 4 years!
Following a left total hip arthroplasty, he made an excellent return to pain-free mobility.

Discussion

This patient was seen by seven different specialists in 4 years before his hip condition was diagnosed. Each team had assumed that the cause of his worsening pain was his Paget’s disease or a knee condition.

This case demonstrates several important points. First, remember the basics! At medical school we are taught to take a history and examine the whole patient before performing investigations. Despite advances in technology and the vast array of expensive investigations and scans now available, there is no substitute for a detailed history and a thorough examination of the patient [1]. Secondly, it is important to try and keep an open mind when dealing with patients who present with long and complex histories who have undergone numerous investigations.

Finally, from an orthopaedic viewpoint, always remember that knee pain can be due to referred pain from hip pathology [2]. This is well documented in children, where any examination for knee pain must include a hip examination [3], but this must not be forgotten as a source of knee pain in the adult.

Key points

- Knee pain may be caused by hip pathology.
- Remember the basics: take a history and do a thorough clinical examination before requesting relevant investigations.
- Keep an open mind when dealing with patients who present with long and complex histories who have previously undergone numerous investigations.
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References

