



CASE REPORT

Acute Hip Pain: Calcium Pyrophosphate Crystal (CPPD) Iliopsoas Bursitis

Torrente-Segarra V^{1*} , Bonet M¹, Fuentes I² and Mateo L²

¹Rheumatology Department, Hospital Comarcal Alt Penedès-Garraf (CSAPG), Vilafranca del Penedès, Spain

²Orthopedic Surgery Department, Hospital Comarcal Alt Penedès-Garraf (CSAPG), Vilafranca del Penedès, Spain

*Corresponding author: Vicenç Torrente-Segarra, MD, PhD, Rheumatology Department, Hospital Comarcal Alt Penedès-Garraf (CSAPG), Espirall s/n, 08720 Vilafranca del Penedès, Spain, Fax: 938-180-491, Tel: 938-180-440



Keywords

Bursitis, Ultrasonography, Chondrocalcinosis, Calcium pyrophosphate dihydrate

Introduction

With respect to the article “An Unusual Association: Iliopsoas Bursitis Related to Calcium Pyrophosphate Crystal Arthritis” published in *Case Reports in Rheumatology* by Di Carlo, et al. [1] describing the unusual association of iliopsoas bursitis and calcium pyrophosphate crystal (CPPD) arthritis as first clinical manifestation of chondrocalcinosis, we would present a similar case in order to increase the awareness of this potential manifestation of chondrocalcinosis.

Case Presentation

We describe a 78-year-old daily hiker woman with no previous significant clinical records presented with a history of acute hip pain, limping, with no previous trauma. Clinical examination showed inability to extend lower left limb, intense pain at hip mobilization with intense limitation of hip range of motion. X-Ray showed severe coxofemoral osteoarthritis with typical CPPD calcification (Figure 1B) and radiocarpal joint calcification (Figure 1C), Ultrasonography revealed both a large hypo-echoic image located before coxofemoral joint and moderate joint synovial hypertrophy (Figure 1A); Magnetic Resonance Imaging confirmed the presence of severe iliopsoas bursitis, severe coxofemoral osteoarthritis with

mild joint effusion (Figure 1D and Figure 1E). An iliopsoas bursa aspiration was performed, obtaining 15 cc of a non-inflammatory featured synovial fluid with the presence of rhomboid crystals with a weak positive birefringence at microscopy polarized light. Patient rapidly showed major improvement after ultrasonography-guided triamcinolone injection of the bursa.

Discussion

Chondrocalcinosis is a microcrystalline disease characterized by multiple foci of calcification in hyaline and fibrocartilage of the joints. Hip is a complex joint and surrounding iliopsoas bursa is one of the largest articular recesses of the human body. Several diseases may lead to an iliopsoas bursitis: Rheumatoid arthritis, osteoarthritis, osteonecrosis, synovial chondromatosis, pigmented villonodular synovitis, septic arthritis, chondrocalcinosis, and complications of total hip arthroplasty [1]. To our knowledge, this is the second reported case of this unusual first presentation of CPPD-chondrocalcinosis, although other pseudotumoral presentations have been also published [1-3].

In our opinion, patients suffering PCCD deposition and hip pain, irrespective of the presence of previous clinical symptoms, should be evaluated in order to detect iliopsoas bursitis, an uncommon presentation.

Disclosure

The authors do not have conflict of interest for this study.

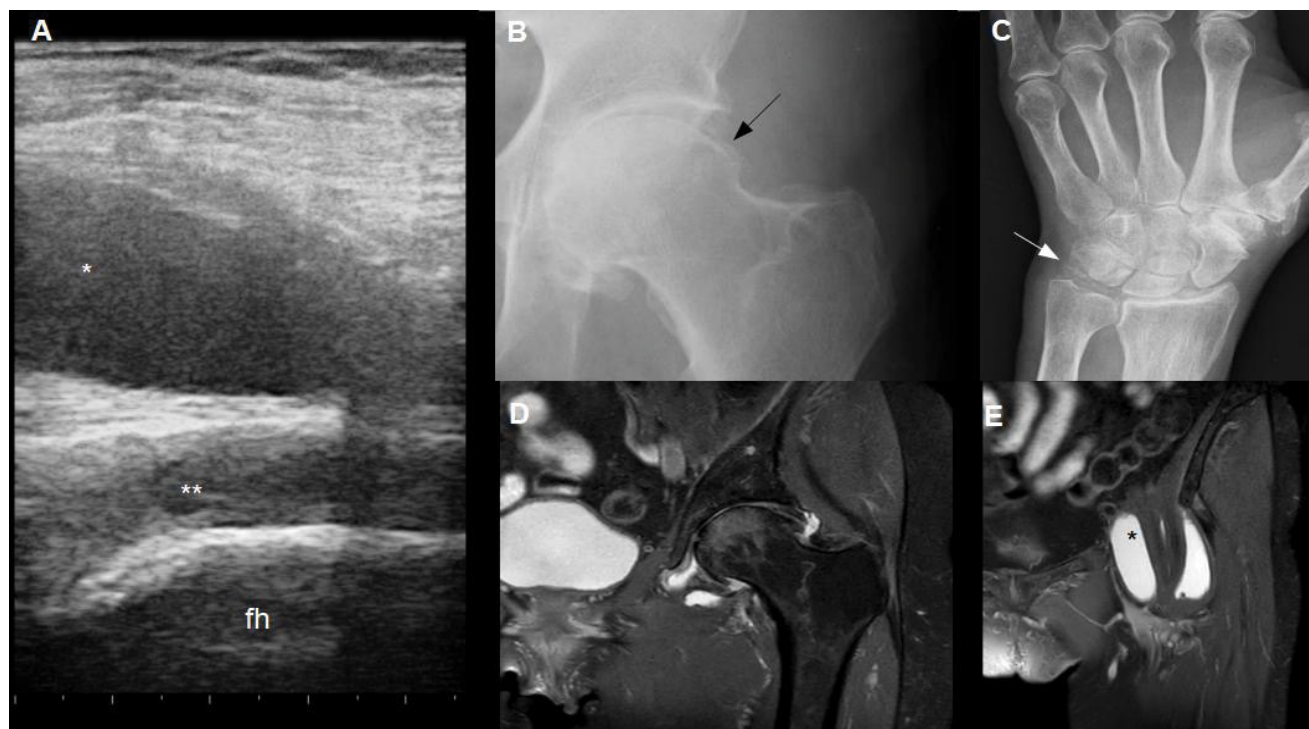


Figure 1: Anterior Hip Longitudinal Ultrasonography scan (A) showing fluid effusion (*) anterior to left coxo-femoral joint (femoral head, fh) and coxo-femoral synovial hypertrophy (**); X-ray of (B) both left coxo-femoral and (C) radiocarpal joints showing calcifications of the soft tissues near the left hip (black arrow) and radiocarpal (white arrow) joints suggestive of calcium pyrophosphate crystal deposition; Magnetic Resonance Imaging: STIR sequenced coronal image of coxo-femoral joints and pelvic area evidencing osteoarthritis and mild joint effusion (D), and STIR sequenced coronal image of the iliopsoas bursa (E).

Patient Consent

The patient signed an informed consent to give permission for publication.

Ethical Committee Approval

The manuscript has been approved by CSAPG-Ethics Committee.

References

1. Di Carlo M, Draghessi A, Carotti M, Salaffi F (2015) An unusual association: Iliopsoas bursitis related to calcium pyrophosphate crystal arthritis. *Case Rep Rheumatol* 2015: 935835.
2. Brunot S, Fabre T, Lepreux S, Diard F, Massonnat R, et al. (2008) Pseudotumoral presentation of calcium pyrophosphate dihydrate crystal deposition disease. *J Rheumatol* 35: 727-729.
3. Menkes CJ, Decraemere W, Postel M, Forest M (1985) Chondrocalcinosis and rapid destruction of the hip. *J Rheumatol* 12: 130-133.