



"NAVIGATING POLYARTHRITIS: DIAGNOSTIC DILEMMAS AND EFFECTIVE MANAGEMENT IN A 57-YEAR-OLD PATIENT"

Orthopaedics

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ABSTRACT

A joint condition known as polyarthritis affects at least five joints. One or more of the following symptoms are present in the affected joints: pain, stiffness, edema, warmth, and redness. When polyarthritis is the only symptom, it can be challenging to distinguish it from other conditions that can also produce polyarticular joint pain (PJP), such as osteoarthritis or fibromyalgia. Distinguishing between arthralgia and arthritis may be aided by imaging techniques like magnetic resonance imaging and ultrasonography. Here is a case of 57/male who presented with complaints of right ankle pain for one month along with polyarthralgia and constitutional symptoms mimicking septic arthritis who was treated surgically by arthroscopic lavage of ankle.

KEYWORDS

Polyarthralgia, Arthritis, Septic Arthritis , Poly Arthritis ,imflammatory Arthritis , Arthroscopic Lavage .

INTRODUCTION:

Joint inflammation brought on by an overactive immune system is known as inflammatory arthritis (IA). It may just affect one joint, but it typically affects numerous joints at once throughout the body [2]. The primary differentiation between inflammatory and osteoarthritis, even though their symptoms may be similar. The stress absorber that lines the bone at the joints, cartilage, is where osteoarthritis begins. Several soft tissues that surround the joint are frequently the site of inflammation-related arthritis[5]. While inflammation is still present, it is less common in osteoarthritis.

Here we present a 57 yr old male came with presenting complaints of ankle pain and swelling and inability to weight bear in that limb ,having constitutional symptom of fever and polyarthralgia mimicking septic arthritis managed with diagnostic arthroscopic with good clinical outcome postoperatively

Case Presentation :

57 yr/male admitted with above mentioned complaints, all necessary investigations were done ,rheumatoid factor was found to be negative and Patient was diagnosed to have B/L Osteoarthritis knee with right ankle arthritis (fig 1)for which, MRI was taken for right ankle which showed Minimal joint effusion with Synovial thickening ,talocalcaneal joint ankylosis(fig 3) ,subtalar joint space narrowed . Diagnostic Arthroscopy of right ankle was performed ; showed synovial tissues sent for HPE the report showed hyperplastic synovium with increased lymphoplasmacytic infiltrate and blood vessels.

Occasional areas of cartilage and degenerated tissue are also seen suggesting . Chronic synovitis.

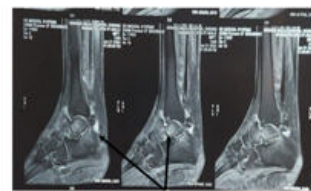
Later patient developed right knee swelling with fever spikes ; patella tap was positive . Arthroscopic lavage of right knee was done and culture grew pseudomonas [10]started on cefipime and Arthroscopic lavage of left knee done for the same complaints , HPE from left knee showed Chronic synovitis and was started on IV Antibiotics and analgesics, and and got Rheumatologist opinion for further management of joint pain and started on and was adviced for PET CT SCAN which showed OA both knee joints; severe osteoarthritis in bilateral subtalar joint; increased metabolic activity in bilateral shoulder and right wrist joints; metabolically active right axillary and supraclavicular lymph nodes and after which the patient was started on DMARDS and patient symptom sympotamically improved and started on physiotherapy.

Physiotherapy : Postoperative AROM was 50 degree on left knee and 60 degree on right side

For which CPM was started and patient ROM Improved .patient was also started ankle pump and mobilization exercises .



Fig 1



Sclerosis seen around talus and calcaneum

Fig 2



Talo-calcaneal ankylosis

Fig 3

Figure 1 Shows ankle arthritis grade 3 obliteration of joint space with subchondral bone contact medially

Classification:

DISCUSSION:

Inflammatory arthritis is a group of disorders characterized by joint inflammation, often leading to pain, deformity, and disability. Despite variations in clinical and demographic factors among these disorders, inflammation plays a crucial role in their development. This has led to the creation of highly effective, broadly applicable treatments, including biologic therapies that target key inflammatory mediators like tumor necrosis factor (TNF). [8]The introduction of these biologics has facilitated more aggressive treatment approaches, significantly reducing disease activity and enabling many patients to achieve remission.

The synovium, as the primary site of inflammation and a major effector organ in various rheumatic diseases, is crucial for understanding the pathophysiology of these conditions. Synovial biopsy and systematic analysis of synovial tissue can provide valuable insights [4]into the etiology, disease status, and prognosis, guiding targeted therapies. The use of objective indicators of disease activity to guide treatment

decisions—known as the "treat to target" strategy—has further improved patient outcomes, helping to manage disease more effectively.

CONCLUSION:

The advancements in understanding the role of synovial inflammation and the development of targeted biologic therapies have transformed the management of inflammatory arthritis. By combining synovial tissue analysis with a "treat to target" [7] approach, clinicians can more precisely tailor treatments, reduce disease activity, and improve long-term outcomes for patients.

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