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Emergency Medicine

TICKLED PINK: THE INTERSECTION OF PSORIASIS AND ARTHRITIS

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ABSTRACT Psoriatic Arthritis an arthritis difficult to diagnose but easy to treat once diagnosed. Psoriatic arthritis is arthritis linked with psoriasis, chronic skin and nail disease. Where telltale signs are swollen and tender joints, psoriasis, skin lesion and nail changes.We report a case of 65-year-old male who attended to Emergency Department with the complain of loose stool, swollen, tender and stiff right elbow and right knee with generalized psoriatic rash over chest, trunk, back and thick pitted fingernail. The paper Describes the features to look for when making the clinical diagnosis. Clinical Diagnosis was made supported with radiological investigation and was treated with NSAIDS.

KEYWORDS : Psoriasis, Arthritis, Rash,

INTRODUCTION

Arthritis is not one disease, but rather a broad term that encompasses more than 100 very different disorders. All involve the joints and are characterized by chronic pain, limited mobility and decreased range of motion. (John Hopkins Arthritis Centre, 2024)

Psoriatic arthritis is a type of arthritis which affect the skin and nail. It is linked with psoriasis and cause red, scaly rashes with thick pitted fingernails.

Psoriatic arthritis (PsA) is a chronic inflammatory disease characterized by wide clinical heterogeneity due to its variable association with different domains, including skin and nail psoriasis, peripheral arthritis, Enthesitis, dactylitis, and spondylitis. (Alberto Floris et al, 2024)

Psoriatic arthritis shows similar symptoms and joint swelling as Rheumatoid Arthritis but as compared to Rheumatoid Arthritis, Psoriatic Arthritis affects fewer joints and it does not make typical R.A. Antibodies (Arthritis Society of Canada, 2024).

Psoriasis and psoriatic arthritis are two sides of the same autoimmune coin. In both cases, immune cells — mostly T-cells — mistakenly target healthy tissue, causing inflammation and cell overgrowth of keratinocytes in skin (psoriasis) and synovial cells in joints (psoriatic arthritis). (Baxt, 2024)

The presence of inflammatory arthritis in a patient with past or current psoriasis is the basis of diagnosis of PsA. However, in about 10% to 20% of patients, there is no history of obvious skin involvement by psoriasis. (John Hopkins Arthritis Centre, 2024) Where patient has arthritis, areas such as the natal cleft, behind the ear, nail pitting and other nail changes should always be examined.

Psoriatic arthritis is often difficult to diagnosis as, it mimics and often overlaps with the Rheumatic Arthritis on the base of symptoms and presence of Anti-CCP antibodies in some cases.

As it lacks specific pathological markers to diagnose the condition making it crucial to know the signs and symptoms of the condition which will help to diagnose on the base of clinical condition, manage the patient on early stage and to differentiate it with other arthritic disease. (Arthritis Society of Canada, 2024)

Various diagnostic criteria have been proposed for PsA . These criteria necessitate the presence of:

1. Psoriasis vulgaris
2. A negative serology for rheumatoid arthritis (RA)
3. Clinical features suggestive of inflammatory arthritis in one or more of the following patterns:

- Distal interphalangeal joint disease
- Asymmetric, oligoarticular (< 5 joints involved)
- Symmetric, polyarticular "rheumatoid arthritis-like",
- Mainly spondylitic (axial involvement)
- Destructive arthritis (arthritis mutilans)

Several other diagnostic criteria have been proposed, including those by Bennett, Vasey and Espinoza, Fournie and CASPAR (Canchi Balakrishnan, 2024) Early signs of psoriatic arthritis are mild and occasional soreness and stiffness in affected joints, fatigue and scaly rash. Swollen and tender joints, psoriasis, skin lesion and nail changes are the telltale sign.

Though patient who are diagnosed with raised Anti-CCP with above mentioned signs are treated on the base of Rheumatic Arthritis with skin complication, which is what makes Psoriatic Arthritis difficult to diagnose as it doesn't have any pathological test which can confirm the condition. This paper signifies not to overlook the skin changes in a patient with arthritis, as the diagnosis is highly overlooked.

METHOD:

A case report of 65 years old male, who attended to the ED with complain of loose stool, swollen tender and stiff right elbow and right knee, later on with clinical findings and Investigations, the patient was diagnosed with Psoriatic Arthritis, and was discharged with plan follow up.

CASE STUDY

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CASE STUDY:

A 65-year-old male patient came to Sterling Hospital Emergency Department with complain of pain in right elbow and right knee associated with generalized rash over trunk and abdomen, itchy, red in color with irregular margin in nature, generalized weakness and loose stool, watery in nature in small amount with frequency of 5-7 episodes a day in the last 3-4 days.

ON CLINICAL EXAMINATION:

- General: Patient was conscious, oriented, afebrile and vitally stable.

- Skin: Generalized red, irregular margin rash was noted over trunk, chest, abdomen and upper and lower limb, sparring face.
- Nails: Thick pitted fingernail.
- Oral Cavity: Dry inflamed buccal mucosa with Oro pharyngitis and glossitis was noted.
- Musculoskeletal: Swollen tender and stiff right elbow and right knee noted with restricted movement.
- Other: Exfoliating in large flakes of skin was noted in bilateral hand and feet.

INVESTIGATION:

1) LABORATORY TESTS:

a) Complete blood count (CBC): normal
b) C-Reactive Protein (CRP): Elevated at 203.3 mg/L (Normal: <10 mg/L)
c) Anti-CCP: >195 IU/ml
d) Liver Function Test: Elevated Bilirubin (total 1.44 mg/dL, conjugated 1.41 mg/dL), Low albumin (2.61 g/dL), low total protein (4.70 g/dL)

2) RADIOLOGICAL INVESTIGATION:

a) X ray right knee was done suggestive of arthritis changes with asymmetrical joint space reduction noted in Tibio-Femoral and Patella-Femoral compartment of right knee, osteophytes seen around the knee with multiple loose bodies seen in supra patellar and popliteal region, supra patellar soft tissue swelling noted.

b) X ray right elbow suggestive of osteoporotic bones and small osteophytes seen at olecranon of ulna.

Table 2 Shows the X-rays of the patient as reported

c) Ultrasound (USG) of Whole Abdomen: Mild hepatomegaly with no focal lesion.

Table 1 Shows a table with Summarised clinical physical findings

Figure 3 X-ray of Right Knee: Showing arthritis changes and joint space reduction.

Figure 4 X-ray of Right Elbow: Showing osteoporotic bones and small osteophytes

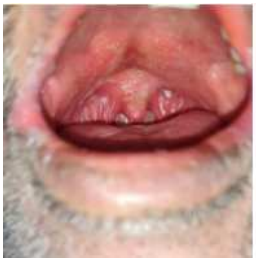

Figure 1a

Figure 1b

Figure 1 c

Figure 1 d

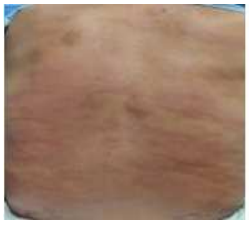

Figure 2 a

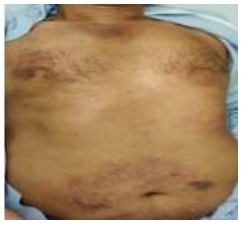

Figure 2b

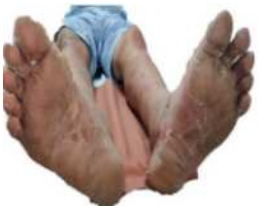

Figure 2c

Figure 2 d

Figure 1a Oro pharyngitis and Uvulitis: Inflammation of the oropharyngeal region.
Figure 2a Psoriatic rash over the back: Red, scaly rash characteristic of psoriasis.

Figure 1b Dry oral cavity with Glossitis: Inflammation and dryness of the tongue and oral cavity with Glossitis.
Figure2b Psoriatic rash over Chest and Abdomen: Generalized rash affecting the torso

Figure 1c Psoriatic rash over the back: Red, scaly rash characteristic of psoriasis.Figure
2c Exfoliating skin over plantar side of the feet: Large flakes of skin peeling from the tops of the feet

Figure 1d Exfoliating skin over palmer side of hand: Large flakes of skin peeling from theFigure 2d Exfoliating skin over dorsal side of hands with thick pitted nail: Severe skin exfoliation and nail changes.

A 65-year old male, presented with pain and swelling in the right elbow and knee, along with a generalized psoriatic rash. The patient also reported loose stools and generalized weakness. Clinical examination revealed signs typical of Psoriatic Arthiritis, including swollen, tender joints and psoriatic skin lesions. Blood tests showed elevated CRP levels and normal CBC. Radiological arthritic changes in affected joints.

The diagnosis is difficult as there is no specific diagnostic test.
According to the John Hopkins Arthritis Centre, PsA is not well not well recognized in the general medical community, resulting in irreversible joint damage occurring in many patients before they are diagnosed. (John Hopkins Arthritis Centre, 2024)

Early detection of the condition and its management can improve and prevent the outcome of the patient.

CONCLUSIONS

Psoriatic arthritis was diagnosed on patient with Rheumatoid Arthritis on the base of generalized psoriasis, swollen, tender and stiff joints with evident of x ray of right elbow and right knee and thick pitted fingernail. Patient was treated with NSAIDS, local moisturizer and other symptomatic treatment. It's not always what we see, Early detection of the condition and its management can improve and prevent the outcome of the patient.

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