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Orthopaedics

ELDERLY-ONSET RHEUMATOID ARTHRITIS PRESENTING AS ISOLATED WRIST MONOARTHRITIS IN A 65-YEAR-OLD FEMALE: A RARE CASE REPORT

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ABSTRACT **Background:** Elderly-onset rheumatoid arthritis (EORA) is an uncommon subset of rheumatoid arthritis characterized by atypical clinical presentations, often resulting in delayed diagnosis. Unlike classical rheumatoid arthritis, EORA may initially present as monoarthritis and mimic degenerative or infectious conditions. **Case Presentation:** We report the case of a 65-year-old female who presented with isolated right wrist pain and swelling for 2 months. The pain was insidious in onset, gradually progressive, and associated with prolonged morning stiffness. Clinical examination revealed diffuse wrist swelling, tenderness, and restricted range of motion. Laboratory investigations demonstrated elevated inflammatory markers with ESR of 99 mm/hr and CRP of 71 mg/L. Rheumatoid factor was positive. Based on clinical and laboratory findings, a diagnosis of elderly-onset rheumatoid arthritis presenting as wrist monoarthritis was established according to ACR/EULAR criteria. The patient was treated with methotrexate-based disease-modifying antirheumatic therapy along with low-dose corticosteroids, resulting in significant symptomatic improvement. **Conclusion:** Elderly-onset rheumatoid arthritis may rarely present as isolated monoarthritis of the wrist, leading to diagnostic confusion with osteoarthritis or septic arthritis. Early recognition and timely initiation of DMARD therapy are essential to prevent irreversible joint destruction and disability.

KEYWORDS : Elderly-Onset Rheumatoid Arthritis, Wrist Monoarthritis, Inflammatory Arthritis, Rheumatoid Factor, DMARDs

INTRODUCTION

Rheumatoid arthritis (RA) is a chronic systemic autoimmune inflammatory disorder primarily affecting synovial joints. It commonly presents in middle-aged individuals with symmetrical polyarthritis involving small joints of the hands and feet. Elderly-onset rheumatoid arthritis (EORA), defined as disease onset after 60 years of age, represents a distinct subset with unique clinical characteristics.

Unlike young-onset RA, EORA frequently demonstrates acute onset, constitutional symptoms, asymmetric involvement, and atypical joint distribution. In some patients, the disease may initially manifest as monoarthritis, creating diagnostic difficulty and often mimicking osteoarthritis, crystal arthropathy, or septic arthritis. Monoarticular involvement of the wrist as the initial presentation is particularly rare.

Early diagnosis of EORA is important because delayed treatment may lead to rapid joint destruction, functional limitation, and decreased quality of life. We present a rare case of elderly-onset rheumatoid arthritis presenting as isolated wrist monoarthritis in a 65-year-old female.

Case Presentation

A 65-year-old female presented to the outpatient department with complaints of pain and swelling of the right wrist for a duration of 2 months. The pain was insidious in onset, gradually progressive, and associated with morning stiffness lasting more than 1 hour. There was no history of trauma, fever, constitutional symptoms, or involvement of other joints at the time of presentation.

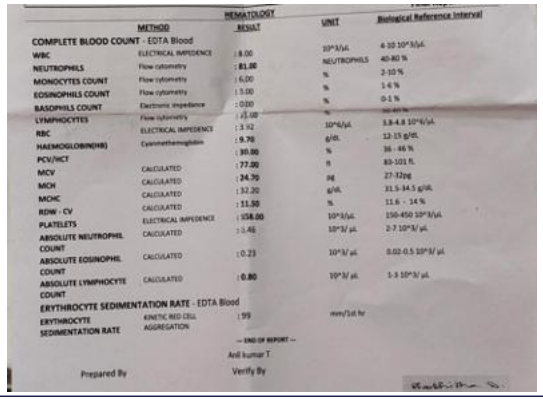
The patient reported difficulty in performing activities of daily living, including gripping objects and household activities. There was no previous history of inflammatory arthritis or connective tissue disorder. Her past medical history was otherwise unremarkable.

On clinical examination, the right wrist showed diffuse swelling and tenderness with painful restriction of movements, particularly at extremes of flexion and extension. There was no erythema, local rise of temperature, or discharging sinus. Examination of other peripheral joints did not reveal any evidence of active synovitis or deformity.

Clinical Photos

Laboratory investigations demonstrated elevated inflammatory markers with erythrocyte sedimentation rate (ESR) of 99 mm/hr and C-reactive protein (CRP) of 71 mg/L. Rheumatoid factor was positive. Routine hematological and biochemical parameters were within normal limits.

Radiographs of the wrist demonstrated soft tissue swelling with early periarticular osteopenia without significant degenerative changes. Based on the clinical findings, inflammatory markers, serological positivity, and fulfillment of ACR/EULAR classification criteria, a diagnosis of elderlyonset rheumatoid arthritis presenting as isolated wrist monoarthritis was established.



HEMATOLOGY	METHOD	RESULT	UNIT	Biological Reference Interval
COMPLETE BLOOD COUNT - EDTA Blood				
WBC	ELECTRICAL IMPEDENCE	: 8.00	10^{*3}/µL	4-10 10^{*3}/µL
NEUTROPHILS	Flow cytometry	: 81.00	NEUTROPHILS	40-80 %
MONOCYTES COUNT	Flow cytometry	: 6.00	%	2-10 %
EOSINOPHILS COUNT	Flow cytometry	: 3.00	%	1-6 %
BASOPHILS COUNT	Electronic impedance	: 0.00	%	0-1 %
LYMPHOCYTES	Flow cytometry	: 10.00	%	1.0-4.8 10^{*6}/µL
RBC	ELECTRICAL IMPEDENCE	: 3.92	10^{*6}/µL	12-15 g/dL
HAEMOGLOBIN(HB)	Cyanmethemoglobin	: 9.70	g/dL	36 - 46 %
PCV/HCT		: 30.00	%	83-101 fL
MCV	CALCULATED	: 77.00	fL	27-32pg
MCH	CALCULATED	: 24.70	pg	31.5-34.5 g/dL
MCHC	CALCULATED	: 32.20	g/dL	11.6 - 14 %
RDW - CV	CALCULATED	: 11.50	%	150-450 10^{*3}/µL
PLATELETS	ELECTRICAL IMPEDENCE	: 358.00	10^{*3}/µL	2-7 10^{*3}/ µL
ABSOLUTE NEUTROPHIL COUNT	CALCULATED	: 3.46	10^{*3}/ µL	
ABSOLUTE EOSINOPHIL COUNT	CALCULATED	: 0.23	10^{*3}/ µL	0.02-0.5 10^{*3}/ µL
ABSOLUTE LYMPHOCYTE COUNT	CALCULATED	: 0.80	10^{*3}/ µL	1-3 10^{*3}/ µL
ERYTHROCYTE SEDIMENTATION RATE - EDTA Blood				
ERYTHROCYTE SEDIMENTATION RATE	KINETIC RED CELL AGGREGATION	: 99	mm/1st hr	

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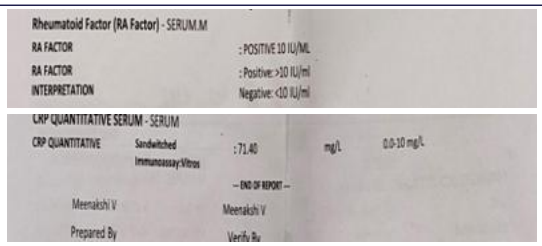
Rheumatoid Factor (RA Factor) - SERUM.M

RA FACTOR	: POSITIVE 10 IU/ML	
RA FACTOR	: Positive: >10 IU/ml	
INTERPRETATION	Negative: <10 IU/ml	

CRP QUANTITATIVE SERUM - SERUM

CRP QUANTITATIVE	Sandwitched Immunoassay:Vitros	: 71.40	mg/L	0.0-10 mg/L

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Laboratory Investigations

The patient was initiated on methotrexate-based disease-modifying antirheumatic drug (DMARD) therapy along with folic acid supplementation and low-dose oral corticosteroids. Symptomatic treatment with nonsteroidal anti-inflammatory drugs was also provided. On followup, the patient demonstrated significant improvement in pain, swelling, and wrist function.

DISCUSSION

Elderly-onset rheumatoid arthritis differs from young-onset rheumatoid arthritis in terms of presentation, disease progression, and therapeutic considerations. EORA commonly presents with abrupt onset, systemic manifestations, larger joint involvement, and elevated inflammatory markers. Classical symmetric small joint polyarthritis may be absent during the initial stages. Monoarticular presentation of RA is uncommon and poses a significant diagnostic challenge. Wrist monoarthritis in elderly patients is more frequently attributed to osteoarthritis, septic arthritis, gout, pseudogout, or tubercular arthritis. Consequently, diagnosis of EORA may be delayed, resulting in progressive synovial inflammation and irreversible joint damage.

The presence of prolonged morning stiffness, elevated inflammatory markers, and positive rheumatoid factor in the present case favored inflammatory arthritis rather than degenerative disease. Careful clinical evaluation and appropriate laboratory investigations were instrumental in establishing the diagnosis.

Early initiation of DMARD therapy remains the cornerstone of rheumatoid arthritis management. Methotrexate is considered the first-line treatment and has demonstrated efficacy in reducing disease activity, preventing joint destruction, and improving functional outcomes. Prompt recognition and treatment are particularly important in elderly patients because delayed diagnosis may rapidly compromise joint function and independence.

This case highlights the importance of maintaining a high index of suspicion for rheumatoid arthritis in elderly individuals presenting with isolated inflammatory wrist involvement.

CONCLUSION

Elderly-onset rheumatoid arthritis can rarely present as isolated wrist monoarthritis, leading to diagnostic confusion with degenerative or infectious conditions. Persistent inflammatory wrist pain with prolonged morning stiffness in elderly patients should prompt evaluation for rheumatoid arthritis. Early diagnosis and timely initiation of DMARD therapy are essential to prevent irreversible joint damage and functional disability.

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