Original Research Paper

Volume - 15 | Issue - 08 | August - 2025 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Internal Medicine

# FROM JOINT TO JEJUNUM: A RARE CASE OF JEJUNAL ARTERY INVOLVEMENT IN RHEUMATOID VASCULITIS

**Dr Jagadeesh Chandrasekaran** MBBS, MD, FRCP, FCCP, Senior Consultant, Department of Internal Medicine, Apollo Main Hospital - Chennai

**Dr Thara Thangavel*** MBBS, DNB Postgraduate, Department of Internal Medicine, Apollo Main Hospital - Chennai *Corresponding Author

**ABSTRACT** Rheumatoid vasculitis (RV) is a rare but severe extra-articular manifestation of long-standing rheumatoid arthritis (RA), often associated with significant morbidity and mortality. While RV commonly affects the skin and peripheral nerves, gastrointestinal involvement—particularly jejunal artery vasculitis—is exceedingly rare. We report the case of a 49-year-old female with a long-standing history of RA and anemia who presented with cutaneous ulcers over the lower limbs and melena for two weeks. Upper gastrointestinal endoscopy showed an inflamed duodenum without active bleeding. However, computed tomography (CT) abdominal angiography revealed an active bleed from a branch of the jejunal artery. Urgent angioembolization was performed successfully. A diagnosis of RV involving the jejunal artery was established based on clinical presentation and fulfillment of the Scott and Bacon criteria, which consider extra-articular manifestations and systemic vasculitis in RA. Following embolization, the patient had no further gastrointestinal bleeding. Skin ulcers improved with immunosuppressive therapy, and she was discharged in stable condition. This case highlights the importance of considering vasculitic gastrointestinal involvement in RA patients presenting with unexplained gastrointestinal bleeding. Early recognition and timely intervention are critical in preventing life-threatening complications. Due to its rarity and nonspecific presentation, jejunal artery vasculitis can be easily overlooked. Clinicians should maintain a high index of suspicion in RA patients with systemic or atypical symptoms.

**KEYWORDS :** Rheumatoid arthritis, Jejunal artery, Rheumatoid vasculitis, Life threatening complication, Angioembolization

## INTRODUCTION

Rheumatoid Arthritis is a chronic systemic inflammatory disorder mainly affecting synovial joints, in addition it also causes extra-articular manifestations in approximately 40%of patients with Rheumatoid Arthritis (1). Among that rheumatoid vasculitis is a rare, Uncommon but serious complication of long standing seropositive rheumatoid Arthritis (1). Rheumatoid Arthritis can affect small to medium sized vessels of any organ system, thus is extremely heterogenous in clinical presentation (1). Active Vasculitis associated with rheumatoid arthritis occurs in about 1-5 % of the patient population (2). Diagnosis is mostly attainable when it involves skin or peripheral nerves, but involvement of internal organs is very serious and more often difficult to diagnose (3). The skin and peripheral nervous system are most involved followed by eyes and pericardium. Involvement of gastrointestinal systems is rare but when it occurs can be organ or life threatening (3). The diagnosis relies on the exclusion of other causes of vasculitis and is based on Scott and beacon criteria. Here, we report a rare case of Rheumatoid vasculitis presenting as GI bleed in a long-standing rheumatoid arthritis

## CASE REPORT

A 49-year-old female with Rheumatoid arthritis for past 20 years (on alternate medications), anemia for past 2 years and impaired glucose tolerance, presented with bilateral lower limb swelling with ulcer over right lower limb for the past 2 weeks and difficulty in walking for the past 3 weeks. Patient also gave history of skin grafting over right leg for ulcer. On clinical examination, she was pale and had bilateral lower limb edema, normal vital signs. Bilateral hands showed typical "Z" rheumatoid deformity. Local examination showed multiple small skin ulcers over both lower limbs. Investigations revealed anemia, thrombocytosis and hypoalbuminemia. Liver and kidney function test were normal. Doppler of Bilateral lower limb showed no deep vein thrombosis. USG Abdomen showed essentially normal study. ECHO showed tachycardia with normal LV function and ejection fraction of 60%. Her CRP, anti CCP and RA factor were elevated. Ferritin and vitamin B12 were normal. During the course of hospital stay, Patient had complaints of Melena and hematochezia. Stool occult blood was positive. She had continuous Malena and hemoglobin dropped to 5g/dl. Upper GI endoscopy showed only inflamed duodenum, duodenal Biopsy showed moderate chronic duodenitis with variable villous deformity with no parasites. CT abdominal angiography showed thickened bowel loop in distal jejunal/ proximal ileum near right iliac fossa showed increased enhancement with prominent vessels and pooling of contrast suggestive of GI bleed in this segment of bowel loop. Angioembolization of bleeding jejunal artery was done on Day 8 of admission. Post embolization on day 3, CT abdomen showed no further bleed or small bowel ischemia and her hemoglobin was 10.1g/dl. There were no further episodes of Malena and patient was clinically better. The patient scored 7 points on European league against Rheumatism (EULAR) classification criteria for Rheumatoid arthritis. Based on EULAR score and comprehensive clinical, Investigative, histopathological findings and long standing Rheumatoid arthritis, she was diagnosed with Rheumatoid vasculitis, treated with tablet Wysolone 40mg, Mycophenolatemofitil 500mg TDS and Hydroxychloroquine 200mg BD. Methotrexate was withheld due to jejunal bleed and anemia. She was followed up as outpatient few days later, she was clinically better and there were no further episodes.

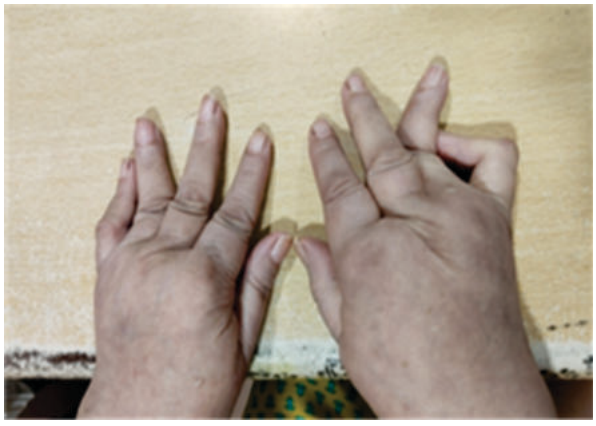

**Figure 1: Ulnar Deviation of Fingers**

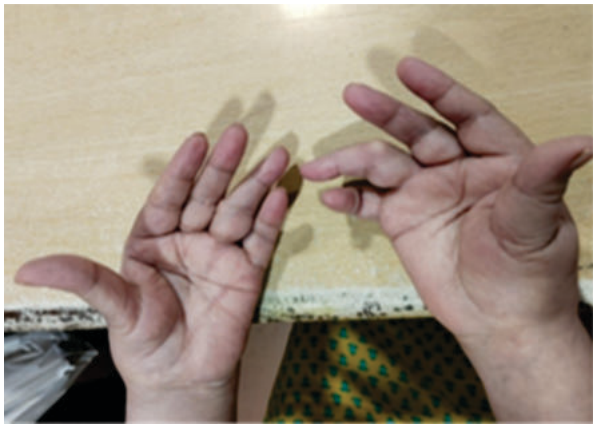

**Figure 2: Boutonniere Deformity of Thumb**

**Table 1: Lab Investigations**

| INVESTIGATIONS | DAY1 | NORMALRANGE |
|---|---|---|
| HEMOGLOBIN | 6.6g/dl | 12 – 15g/dl |
| WBC | 10.99 | 4000-11,000/mm |
| PLATELETS | 12,07,000 | 150000- 4,00,000/mm |
| UREA | 28mg/dl | 13-43 mg/dl |
| CREATININE | 0.8mg/dl | 0.6-1.1mg/dl |
| PT /INR | 13 secs /1.17 | 9-13 secs |
| APTT | 31 secs | 21-33 secs |
| CRP | 14.2 mg/dl | <5 mg/dl |
| ANTI-CCP | 158 | >5 Ru/ml |
| RA FACTOR | 163 | >30 positive |
| COMPLEMENT 3 | 72 | 84-175mg/dl |
| COMPLEMENT 4 | 39.8 | 15-50mg/dl |
| ANA /Anti-dsDNA | Negative | |
| ANTI-MPO IgG | 25.2 U | >30 U |
| ANTI-PR3 IgG | 1.5 | >30 U |
| LIVER FUNCTION TEST | Normal | |
| STOOL OCCULT BLOOD | POSITIVE | |
| FERRITIN | 47.7 | 10-120ng/ml female |
| TIBC | 89 | 250-425 mcg/dl |
| VITAMIN B12 | 627 | 20-678 ng/l |
| DCT | Negative | |
| LDH | 186 | 125-200u/l |

## DISCUSSION

Rheumatoid Arthritis is a chronic systemic autoimmune disease mainly involving joints, leading to destruction (1). Rheumatoid vasculitis occurs typically in patient with long standing seropositive rheumatoid arthritis with destructive joints. Usually, Rheumatoid vasculitis develops after 10 to 14years of disease (1). Among that, Gastrointestinal involvement has been reported in only 10% of patients with Rheumatoid arthritis with mesenteric vasculitis as the most common manifestation (1).

Multiple risk factors for Rheumatoid vasculitis are long standing Rheumatoid arthritis, male, smoking, rheumatoid nodules and HLA class I, II genotypes (2). Rheumatoid vasculitis is a rare, but catastrophic extra articular complication of rheumatoid arthritis, characterized by inflammation of small and medium sized blood vessels. Rheumatoid vasculitis most commonly involves skin and peripheral nerves and involvement of major organs is less common. There are no definite criteria for Rheumatoid vasculitis, diagnosis can usually be made by history, clinical, examination, specific laboratory tests and histopathological examination (2). Though exact pathology remains unclear, it is hypothesized that RA factor and auto-antibodies such as anti- endothelial cell antibody forms immune complexes and get deposited in various organs and cause inflammation, endothelial cell damage leading to ischemic necrosis and organ dysfunction (3).

Scott and Bacon criteria from 1984 for diagnosis of Rheumatoid vasculitis, Patient should present with at least one of the following, 1.Mononeuritis multiplex or peripheral neuropathy, 2. Peripheral gangrene, 3. Biopsy evidence of acute necrotizing arteritis plus systemic illness, 4. Deep cutaneous ulcer or extra articular disease (Pleuritis / pericarditis/ scleritis).

Corticosteroids and cyclophosphamide have been historically used for Rheumatoid arthritis (1). With advent of biologically active agents, the paradigm of Rheumatoid vasculitis has been shifted to the employment of anti-TNF agents and Rituximab (2).

Our patient fulfilled the 2010 ACR/ EULAR with score of 7 and high tires of RA factor and Anti-CCP. As per Scott and Bacon criteria, our patient had cutaneous ulcer and peripheral neuropathy (4). Hence, Definite diagnosis of long standing Rheumatoid Arthritis complicated by Rheumatoid vasculitis was made. Our case is rare and significant for two main reasons. Firstly, it underscores the rare occurrence of rheumatoid vasculitis affecting the gastrointestinal tract. Secondly, involvement of jejunal artery is very rare. To our knowledge, there are very few documented cases of rheumatoid vasculitis involving jejunal artery. Additionally, our case highlights the importance of considering GI tract involvement rather than as a diagnosis of exclusion to enable early management and prevent complications.

## CONCLUSION

This case highlights the rare occurrence of rheumatoid vasculitis involving the gastrointestinal tract on a long standing case of rheumatoid arthritis. This case also emphasizes the requirement for high degree of suspicion for prompt recognition and treatment in order to secure a better prognosis and avoid complications and morbidity associated with this severe form of rheumatoid vasculitis.

**Declaration**
**Funding:** None
**Conflict of Interest:** None
**Ethical Approval:** Not required

## REFERENCES

1. Lee JE, Kim IJ, Cho MS, Lee J. A case of rheumatoid vasculitis involving hepatic artery in early rheumatoid arthritis. J Korean Med Sci. 2017;32(7):1207-10. doi: 10.3346/jkms.2017.32.7.1207.
2. Anwar MM, Tariq E, Khan U, Aslam A, Ali SS, Anwar F. Rheumatoid vasculitis: is it always a late manifestation of rheumatoid arthritis? Cureus. 2019 Sep 28;11(9):e5790. doi: 10.7759/cureus.5790.
3. Karra N, Mustyala S, Meghi S, Shah A, Munagala MR, Mohamed I, et al. Rheumatoid vasculitis involving gastrointestinal tract pre-dating rheumatoid arthritis: a case study and literature review. Cureus. 2024 Aug 20;16(8):e67346. doi: 10.7759/cureus.67346.
4. Scott DG, Bacon PA, Tribe CR. Systemic rheumatoid vasculitis: a clinical and laboratory study of 50 cases. Medicine (Baltimore). 1981 Jul;60(4):288–97. PMID: 7242322.