

Rheumatoid Arthritis and Peripheral GangreneNilesh Kumar¹, Vijay Parashar², Ravindu³, Mahendra Jangid⁴¹Assistant Professor, General Medicine, IMS, BHU, Varanasi, India²Junior Resident, IMS, BHU, Varanasi, India***Corresponding Author:****Name:** Nilesh Kumar**Email:** nilesh19arreno@gmail.com

Abstract: Rheumatoid Vasculitis is an unusual and life threatening complication of longstanding, severe rheumatoid arthritis. Rheumatoid Vasculitis is a manifestation of extra-articular rheumatoid arthritis and involves the small and medium-sized arteries in the body. We report a 45 year old female presented with acute onset gangrene of bilateral foot finger with background history of rheumatoid arthritis. The case was treated with azathioprine and methylprednisolone and had shown improvement.**Keywords:** Rheumatoid arthritis, Gangrene, Bilateral foot finger.

INTRODUCTION

Rheumatoid vasculitis showed increased mortality as compared with that in patients with Rheumatoid Arthritis in general [1]. Systemic vasculitis in Rheumatoid arthritis usually occurs in patients of having long standing disease and it may occur at any time during the disease course, and associated with a poor prognosis [2]. The appearance of rheumatoid vasculitis usually associated with a rise in acute-phase markers such as sedimentation rate and C-reactive protein, along with long standing thrombocytosis and anemia of chronic disease [3]. Vasculitis in patients with RA often affects multiple organs and commonly develops nail fold infarcts and leg ulcers. These patients usually have more widespread vascular disease [4].

CASE REPORT

A 45 year old lady presented to our medicine opd with history of multiple symmetrical peripheral joints pain for 4 years, blackish discoloration of bilateral foot fingers for 7 days. Associated symptoms were worsening of symptom during night and morning stiffness. However there was no history of photosensitivity, oral ulceration, rash, bad obstetrics history, fever etc. patient was treated for her joint pain with non-steroidal anti-inflammatory drugs by local practitioners. There was no history of cardiac disease or similar complaints in the past. On examination patient was found to have a pulse rate of 84/min, regular and rhythmic. A blood pressure of 142/80 mm Hg without any postural drop, respiratory rate of 16/min and was afebrile. Mild pallor along with, swelling and tenderness of multiple symmetrical peripheral joints was present. Blackish discoloration of the feet from the tip of all toes extending beyond metatarsophalangeal joints suggestive of gangrenous

changes (Fig. 1, 2). However, all peripheral pulses were well palpable. Other systemic examinations were within normal limits. Patients investigations revealed Hb of 9.8gm/dl, TLC of 11600cells/cumm, DLC of (N70, L13), platelet count of 4.59 lakhs/cumm. ESR of 52mm/hr, General blood picture showed normochromic normocytic anaemia. Other investigations such as Random blood sugar, Renal and Liver function test, Fasting lipid profile, urine routine microscopy were normal. Her CRP titre 2.2mg/dl was raised (normal less than 0.6mg/dl). HIV, HbsAg and anti HCV were non reactive. ANA, Antids DNA, Lupus Anticoagulant, Anticardiolipin IgM antibody, c-ANCA & p-ANCA came negative. Her skin biopsy was suggestive of small vessel vasculitis. Her PT/INR was 14.1/1.04. Her Rheumatoid Factor came out to be 114.92 IU/ml (normal less than 20 IU/ml) and AntiCCP2Ab was 215 IU/ml (normal, less than 25 IU/ml). Along with these investigations final diagnosis of rheumatoid vasculitis made. Patient was treated with inj. methyl prednisolone 1 gm i.v. for 5 days followed by Tab azathioprine 25mg OD & supportive treatment. On follow up patient was being improved symptomatically with treatment.

DISCUSSION

Vasculitis is a group of disorders that destroy blood vessels by inflammation of both arteries and veins [5]. According to the size of the vessel, vasculitis is classified into Large vessel vasculitis such as Polymyalgia rheumatica, Takayasu's arteritis, Temporal arteritis, Medium vessel vasculitis such as Buerger's disease, Cutaneous vasculitis, Kawasaki disease, Polyarteritis nodosa, Small vessel vasculitis such as Behçet's syndrome, Churg–Strauss syndrome, cutaneous vasculitis, Henoch–Schönlein purpura, Microscopic polyangiitis, Wegener's granulomatosis

and cryoglobulinemia [6]. Rheumatoid vasculitis associated with destructive inflammatory process that is centered on the blood vessel wall and associated with significant morbidity [7]. In Rheumatoid arthritis HLA-DRB1 epitope are strongly associated with extraarticular disease [8]. Rheumatoid vasculitis may involve cerebral, mesenteric, coronary arteries along with infarctions of the digits and nailfold, leg ulcers and mononeuritis multiplex [9]. High titers of rheumatoid factor, positive antibodies to cyclic citrullinated peptides are more likely to occur in these patients [3]. Pericarditis, scleritis, rheumatoid nodules, nodulosis, are early manifestations of rheumatoid vasculitis [2, 10]. In a study anti-CCP antibodies were detected in 93% of 25 patients with systemic rheumatoid vasculitis as compared with 70% of 19 patients with RA without vasculitis [11] Management of rheumatoid vasculitis favour the use of cyclophosphamide and high-dose glucocorticoids [12].



Fig. 1 (a): Blackish discoloration of the feet from the tip of all toes extending beyond metatarsophalangeal joints suggestive of gangrenous changes.



Fig. 1(b): Blackish discoloration of the feet from the tip of all toes extending beyond metatarsophalangeal joints suggestive of gangrenous changes

CONCLUSION

Rheumatoid vasculitis is among the most serious complications of Rheumatoid arthritis. Advanced treatment options such as biologic therapies are potential therapeutic options. Early diagnosis of rheumatoid vasculitis with cautious selection of the most appropriate treatment option is critical to reduce morbidity & mortality due to disease complications & vasculitis as well as treatment related toxicity.

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