Case Report

Inflammatory bowel disease with ankylosing spondylitis and autoimmune overlap

Mahalakshmi*

[1]Physician assistant, Kauvery Hospital, Cantonment, Trichy, Tamil Nadu
*Correspondence

Abstract

Background: Inflammatory bowel disease (IBD) is frequently associated with extraintestinal manifestations, including musculoskeletal and autoimmune disorders. We report a case of a 56-year-old female with known ulcerative colitis presenting with acute flare of bowel symptoms and inflammatory back pain, found to have ankylosing spondylitis with HLA-B27 positivity and autoimmune serological markers including ANCA and anti-Ro52 positivity, suggesting a complex autoimmune overlap.

Key words: Inflammatory bowel disease (IBD); Ankylosing spondylitis

1. Introduction

Inflammatory bowel disease is a chronic relapsing inflammatory disorder of the gastrointestinal tract, often associated with systemic autoimmune conditions. Extraintestinal manifestations such as spondyloarthropathies are well recognized, particularly in HLA-B27–positive individuals. The coexistence of IBD with ankylosing spondylitis and positive autoimmune serology presents diagnostic and therapeutic challenges.

2. Case Presentation

A 56-year-old female, a known case of ulcerative colitis, presented with gastrointestinal and musculoskeletal complaints.

3. Chief Complaints

- Loose stools for 7 days (6–8 episodes/day, watery with mucus)
- Left lower limb pain radiating to the hip for 3 days following stair climbing • Generalized tiredness
- History of low-grade fever
- History of unintentional weight loss

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- No History vomiting, abdominal pain, dysuria, or burning micturition. Urine output was adequate.

3.1. Past Medical History

- Ulcerative colitis
- Calcaneal spur (right foot)

4. Clinical Examination

- Conscious, oriented, afebrile
- Blood pressure: 100/60 mmHg
- Pulse rate: 92/min
- SpO_2: 98% on room air
- Systemic Examination
- Cardiovascular: S1, S2 normal
- Respiratory: Bilateral normal vesicular breath sounds • Abdomen: Soft, non-tender
- Random blood glucose: 122 mg/dL

5. Investigations

Hematological and Inflammatory Markers (Hemoglobin)	11.5 g/dL
WBC count	12,890/μL
Platelet count	4.22 ×10^5/μL
ESR	95 mm/hr
CRP	8.16 mg/L

5.1. Biochemical Parameters

Urea	14.98 mg/dL
Creatinine	0.6 mg/dL
Sodium	140 mmol/L
Potassium	3.4 mmol/L
Calcium	8.1 mg/dL
Phosphorus	4.3 mg/dL
Vitamin D	15.1 ng/mL

5.2. Liver Function Tests

SGOT	20.9 IU/L
SGPT	14.0 IU/L
ALP	143 IU/L
GGT	44 IU/L
Immunological Workup HLA-B27: Detected • C-ANCA	Positive (53.4)
ANA profile	Anti-Ro52 positive (11)
Rheumatoid factor	8.6 IU/mL
Anti-CCP antibody	1.8 U/mL

5.3. Complement levels

- C3: 179 mg/dL
- C4: 29 mg/dL

5.4. Microbiological Studies

- Stool culture: No growth
- Stool routine: Pus cells 8–10/hpf
- Urine culture: No growth.
- Urine Routine:
  - Pus cells: 8–10/hpf
  - RBCs: 1/hpf

Imaging and Endoscopy

Colonoscopy Findings: Features suggestive of IBD

6. Differential diagnosis

- Ulcerative colitis with backwash ileitis
- Crohn's disease with ileocolonic involvement • CECT Abdomen and Pelvis
- Non-specific mesenteric lymphadenopathy

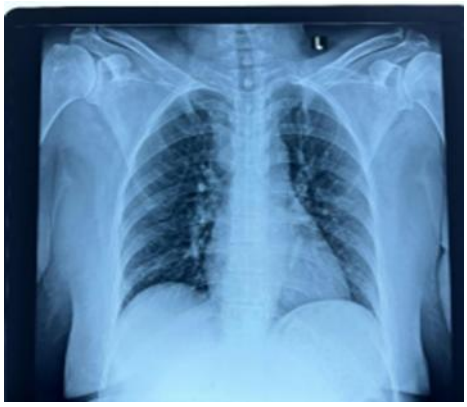

Fig (1): Chest X-Ray

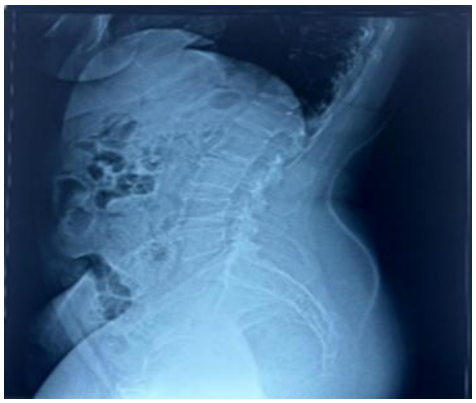

Fig (2): Xray LA Spine lateral Pelvis – AP view

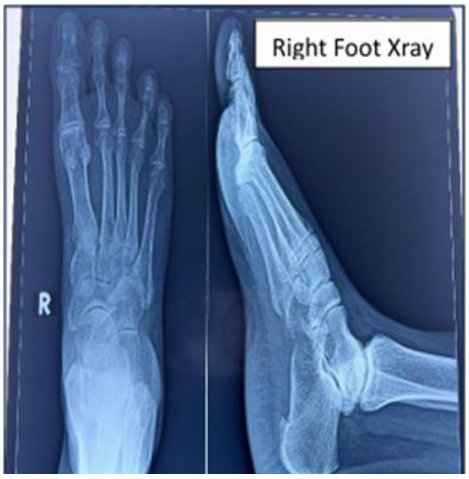

Fig (3): Right Foot Xray

7. Specialty Consultations

- Orthopedics: Low back pain with left lower limb radiation; suspected trochanteric bursitis.
- Advised X-ray LS spine, pelvis AP view, MRI LS spine with pelvis screening • Rheumatology: Ankylosing spondylitis.

- Advised TB QuantiFERON-Gold assay.
- Gastroenterology: IBD flare: advised colonoscopy and CECT abdomen.
- Ophthalmology: Screening for uveitis – normal.
- Plastic Surgery: Right 2nd metatarsal head callosity: Advised OPD-based Excision.

8. Treatment

Drug name	Dosage	Frequency
Inj. Pantoprazole	40 mg IV	Once daily
Tab. Rifaximin	550 mg	Three times daily
Tab. Alprazolam	0.25 mg	Bedtime
Tab. Racecadotril	100 mg	Twice daily
Capsule VSL#3	-	Twice daily
Capsule Cholecalciferol 60,000 IU	60,000 IU	Once weekly
Volitra gel (local application)	-	-
Tab. Mesalamine	800 mg	Once daily
Tab. Wysolone (Prednisolone)	40 mg	Once daily
Tab. Calcium (Shelcal)	500 mg	Once daily

9. Discussion

Patients with IBD may present with complex autoimmune overlap syndromes involving musculoskeletal and systemic manifestations. Early recognition and coordinated multidisciplinary care are critical to prevent disease progression and complications.

10. Conclusion

Autoimmune overlap syndromes should be considered in patients with IBD presenting systemic manifestations. Comprehensive evaluation and coordinated care among gastroenterology, rheumatology, and orthopedics are crucial for optimal outcomes.