INTRODUCTION

Chronic recurrent multifocal osteomyelitis is a rare autoinflammatory bone disease affecting mainly pediatric population characterized by intermittent periods of exacerbations and remissions involving multiple sites. Common in females, usually affecting metaphysis of long bones, mimic bacterial osteomyelitis and diagnosis often missed. Ineffectiveness of antibiotics and frequent recurrence with prolonged hospital stay mandates better understanding and management of CRMO. This is a case report of a rare case of CRMO which was missed in the initial presentation and diagnosed when relapsed a year later.
CASE REPORT

7 year old female child presented with 6 months history of pain both legs with on and off fever for 3 days. Pain was insidious onset and dull aching type, initially on the left leg and then on the right, exaggerated on walking and relieved on taking rest. No history of trauma. Similar history 8 months back for which oral medications was taken from nearby hospital. On examination moderately built child with diffuse swelling and tenderness bilateral tibial diaphysis. Range of movement bilateral knee and ankle full. No distal neurovascular deficits. Systemic examination unremarkable. Blood routine showed elevated ESR(70mm/hour). Total WBC count 10000 per microliter. CRP normal. Blood culture negative. Xray normal. MRI suggestive of acute osteomyelitis. Open drainage done, culture sterile and biopsy negative. Prolonged course of antibiotics and immobilization given. Patient back to normal after 2 months.

After 1 year patient came with recurrence of pain both lower limb. ESR and CRP normal. Blood culture negative. Xray left tibial diaphysis showing lytic and sclerotic areas, right tibia shows cortical thickening. MRI showing altered signals and periosteal reaction suggesting possibility of acute on chronic osteomyelitis. Culture sterile. Biopsy shows inflammatory condition with neutrophilic infiltration. CRMO was diagnosed. Treated with immobilization and NSAIDs. Patient symptom free in 2 weeks.
This is a unique case of bilateral tibial diaphyseal involvement with pus formation diagnosed as CRMO when relapsed after 1 year. It is a diagnosis of exclusion based on clinical, radiological and pathological data. Treatment goals are maintaining normal bone growth and early return to normal living. NASIDs (Naproxen) given during relapse had a very good response. Corticosteroids, methotrexate, bisphosphonates, TNF alpha inhibitors, anti interleukin 1 beta in combination therapy can be given to non responders. Strong suspicion and early diagnosis can prevent prolonged antibiotic therapy and hospital stay.