

# Tuberculous Arthritis Complicating a Gout Flare: A Case Report

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## INTRODUCTION

Concomitant infection of chronic gouty arthritis with *Mycobacterium tuberculosis* is uncommon. In the Philippines' data, only a few cases have been reported. Patients with chronic joint inflammation are prone to concomitant infection and in an area with a high TB burden, there should be a high index of suspicion for its occurrence.

## PATIENT PRESENTATION

- 45-year-old male, hypertensive, non-diabetic patient who came in due to dyspnea and noted new onset swelling of the left knee with associated limited range of movement.
- complained of on-and-off joint pains involving knees and ankles with noted swelling and warmth of affected area during episodes for 15 years
- self-medicated with prednisone 5 mg 3x a day as needed with colchicine.
- admitted 9 months ago due to Weil's disease and 6 months ago due to lung abscess
- known gouty arthritis with uric levels of 11mg/dl
- 10 pack- year smoker; moderate alcoholic beverage drinker
- on PE - tachypneic, weak with pallor, with BCG scar; with bilateral crackles on chest auscultation
- swelling on the left knee with warmth and tenderness on mild palpation and with limited extension and flexion of the left knee.

## DISCUSSION AND CONCLUSION

Although extrapulmonary TB is less common and underreported in the Philippines, it must be considered in high-burden areas, especially among patients with gouty arthritis. Gout and its treatments predispose to infections, while anti-TB therapy can worsen gout flares. In cases of acute monoarticular involvement with abscess formation, a high index of suspicion for concomitant musculoskeletal TB is essential. Prompt synovial aspiration and examination are critical to distinguish between gout and TB, prevent rapid joint destruction, and ensure appropriate management.

## CLINICAL COURSE



- Laboratories taken showed leukocytosis with the highest at 34,000 and reactive thrombocytosis at 661. The uric acid level was at 7 mg/dl, Synovial fluid aspirate showed positive for MTB on Gene Xpert and monosodium urate on crystal studies. The culture and sensitivity of synovial fluid and blood 2 sites showed no growth for organisms. X-ray of the left knee showed unremarkable results.
- Arthrocentesis daily ( 5 days) draining 5-8 ml
- Patient was then started on isoniazid, rifampicin, pyrazinamide, and ethambutol drug regimen. On day 7 of HRZE medication, noted a recurrence of swelling and pain in the left knee, and uric acid showed further elevation at 10 mg/dl from 7 mg/dl.
- As per clinical guidelines on TB 2021 edition, for patients developing gout attacks while on anti- TB medications, pyrazinamide should be removed and re-introduced accordingly. For the patient, pyrazinamide was removed and HRE continued, the colchicine and febuxostat with topical pain reliever maximized. Daily or as needed arthrocentesis was done until with decreased swelling of left knee.

## REFERENCES

1. World Health Organization. Global Tuberculosis Report 2020. WHO/CDS/TB/2020.20. Geneva: The Organization; 2020.
2. Held MFG, Hoppe S, Laubscher M, Mears S, Dix-Peek S, Zar HJ, Dunn RN. Epidemiology of Musculoskeletal Tuberculosis in an Area with High Disease Prevalence. Asian Spine J. 2017 Jun;11(3):405-411. doi: 10.4184/asj.2017.11.3.405. Epub 2017 Jun 15. PMID: 28670408; PMCID: PMC5481595.