

Clinical Image

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Chronic back pain in untreated gout

Syang Pyng Gan^{1*}, Nurashikin Jamaluddin²

¹Department of General Medicine, Rheumatology Unit, Hospital Sultan Idris Shah, Serdang, Ministry of Health, Malaysia.

²Radiology Department, Hospital Sultan Idris Shah, Serdang, Ministry of Health, Malaysia.

***Corresponding Author: Syang Pyng Gan**

Department of General Medicine, Rheumatology Unit, Hospital Sultan Idris Shah, Serdang, Ministry of Health, Malaysia.

Email: gs_pyng@yahoo.com

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Description

A 41-year-old man with a 10-year history of untreated chronic tophaceous gout presented with acute flare of gouty arthritis. He has chronic low back pain which has become more severe for the past 1 year. Clinically he has tenderness at lower lumbar spine although there was no neurological deficit. Laboratory test revealed raised inflammatory markers (ESR 70mm/hour) and C-reactive protein 287.1 mg/L, reactive thrombocytosis and leucocytosis, renal impairment and elevated serum uric acid (780 $\mu\text{mol/L}$). He had microscopic hematuria and ultrasound showed right mild hydronephrosis without any calculi identified. Computerized Tomography Urogram (CTU) confirmed the findings of an obstructive right hydronephrosis and hydroureter due to a right ureteric calculus. Incidentally, CTU revealed a lobulated, heterogenous hyperdense soft tissue ossified mass measuring (4.6x7.3x8.1 cm) at lumbar vertebral bodies (L2-L4) with overhanging edge erosions of adjacent vertebra mainly involving the facet joints, pedicles and lamina (Figure 1).

Based on the clinical and typical radiographic findings, spinal gout was diagnosed. Patient was however, not keen for a CT-guided biopsy for a confirmation of spinal tophi. Right nephrotomy was performed for the obstructive right hydronephrosis.

Urate lowering therapy was started with the aim to target serum uric acid level less than 300 $\mu\text{mol/L}$, as recommended.

Spinal gout is often an underdiagnosed clinical manifestation of gout [1], with diagnostic challenges. Histopathological examination of the spinal mass is important for confirmation of gout [2]. However, tissue biopsy is invasive and is therefore, not always feasible. Dual-energy Computerized Tomography is a non-invasive imaging technique to look for monosodium urate deposition [3] but this modality is yet to be widely available. Hence pathognomonic radiological changes of gout in CT imaging play a crucial role in diagnosis. A diagnosis of spinal gout needs to be considered in patients with poorly controlled gout who present with back pain or neurological deficits.

References

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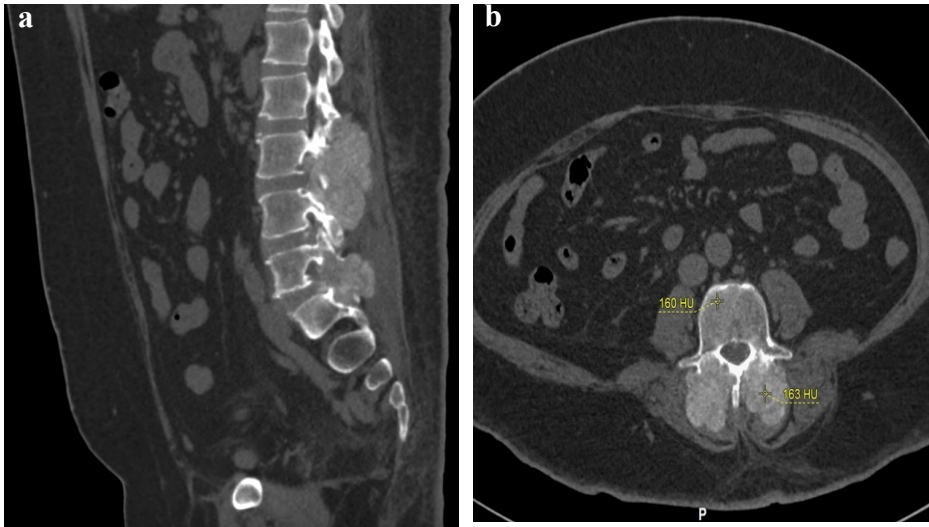


Figure 1: Plain CT study image in (a) sagittal left paravertebral and (b) axial at L3/L4 level shows multiple well define lobulated hyperdense soft tissue ossified lesion/tophaceous gouty deposits (H.U almost similar with the lumbar vertebrae) at bilateral posterior lumbar paravertebral level mainly located bilateral L3/L4 facet joint and left L5/S1 facet joint. Erosion with overhanging edge of the facet joints, pedicles and lamina.