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CORRESPONDENCE

Isolated finger pads gouty tophi: An unusual location

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An 89-year-old man was admitted because of fever and right knee pain for 1 day. He had hypertension, diabetes mellitus, chronic renal failure (CRF), ischemic heart disease, osteoporotic vertebral collapse, and left neck of femur fracture with operation performed. On physical examination, he was noted to have fever (38°C) and right knee effusion. In addition, whitish papules or plaques were noted over the finger-pads of bilateral thumbs, right ring finger, left index finger, and bilateral middle fingers; whitish to yellowish nodules were noted over the bilateral index fingers, bilateral middle fingers, and right ring finger (Figure 1). Complete blood count was normal. Renal function test noted elevated urea (42.3 mmol/L) and creatinine (342 μmol/L). Urate level was 611 μmol/L. X-rays of the right knee and bilateral hands were unremarkable. Right knee arthrocentesis was performed and noted urate crystals within the joint fluid. The patient was prescribed colchicine and Panadol. Due to the possibility of pustules, the orthopedic surgeon was consulted. Longitudinal incision was performed over the whitish plaque on the right ring finger reviewing chalky whitish materials. These materials

did not yield any positive microbiological culture. The finger pad lesions were diagnosed clinically as gouty tophi. Allopurinol was prescribed. The patient has been followed up for the past 2 years and finger pads lesions have remained static. The right ring finger plaque ruptured spontaneously recently; the white chalky materials was histologically found to consist of needle-shaped crystals with negative birefringence under polarized light microscopy, which was diagnostic of urate crystals.

Tophi are deposits of monosodium urate, which usually deposit in the skin around the dorsal aspect of small joints of the hands, small joints of the feet, olecranon, and prepatellar bursae.¹ However, our patient's tophi can only be identified at the finger pads. Including our patient, a review of the literature identified a total of 15 patients with finger pads tophi (Table S1 supplementary table).^{1–5} The mean age of diagnosis is 73 ± 10.8 years and sex ratio (male:female) is 8:7 with mean urate level of 616 ± 107 μmol/L. Excluding two patients with missing information, 76.9% (n = 10) suffered from CRF and 61.5% (n = 8) was taking medications known to predispose to gout at the time of diagnosis. Our review confirms previous findings that patients with finger pad gouty tophi are often elderly with a high prevalence of CRF and taking predisposing medications e.g., diuretics.^{1–5} Monosodium urate is well known to deposit in peripheral body parts because of lower temperature or stagnant blood flow in the peripheral small vessels.¹ The exact reason why urate occasionally deposits at the finger pads remains unknown. Clinicians may consider these lesions as pustules or subcutaneous abscess especially if the

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Figure 1 (A) Right hand: whitish papules or plaques were noted over the finger-pads of the right thumb and right ring finger; whitish to yellowish nodules were noted over the right index, middle, and ring finger pads; (B) left hand: whitish papules or plaques were noted over the finger-pads of the left index and middle fingers; whitish to yellowish nodules were noted over the left index and middle finger pads; (C) left thumb: whitish papules or plaques and whitish to yellowish nodules over the finger pad.

patient presented with fever. In this clinical situation, biopsy of the lesions or usage of a scalpel to collect the materials for examination using polarized microscopy can be considered. Patients with finger pad gouty tophi should be managed as tophaceous gout with prescription of urate lowering therapy (e.g., allopurinol or febuxostat).

In summary, clinicians should be aware that gouty tophi can occur in finger pads.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.jfma.2016.05.010>.

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