

Title: Debulking surgery for bilateral deforming forefoot tophaceous gout: A case report

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Reviewer F: Mohammad Saief Uddin, ORCID: 0009-0007-0023-6725, COI: None, AI disclosure: None

1. **Comment** The title appear to imply that histopathology preceded surgery.
Response: The title has been changed to : 'Debulking surgery for bilateral deforming forefoot tophaceous gout: a case report'.
2. **Comment** The wording concerning joint destruction, soft-tissue compromise, deformity was inappropriate and the type of first metatarsophalangeal deformity was not specified
Response: The statements are rewritten using (Lines 17-23). The deformity is now described as bilateral first metatarsophalangeal deformity with lateral deviation of the great toes (Lines 25 and 69-70).
3. **Comment** Normal or laboratory reference values for the biochemical markers were not provided.
Response: Laboratory reference ranges have been added for serum urate (3.5-7.2 mg/dL for males) and serum creatinine (0.6-1.2 mg/dL for males) in both the Abstract and Case Description and Management (Lines 26-27 and 73-74).
4. **Comment** Statements in the Introduction required references; the wording was unclear and overlapped with the Discussion
Response: The Introduction was rewritten and appropriately referenced. It now covers the global burden of gout, progression to chronic tophaceous disease, preventive treat-to-target therapy, surgical indications and the specific novelty of the present case (Lines 45-58). Repetitive wording was removed from the Discussion.
5. **Comment** The case description contained overly long sentences, repeated the Abstract and presented personal history and comorbidities too late.
Response: The Case Description and Management was reorganised chronologically. Age, occupation, obesity, hypothyroidism, smoking history, absence of diabetes and relevant family history now appear at the beginning, followed by disease evolution, prior treatment, examination, investigations, management and outcome (Lines 60-105). Long sentences were divided and unnecessary repetition was removed.
6. **Comment** The wording 'metatarsophalangeal joints were tender and painful' was inappropriate, and the clinical story was unclear.
Response: The examination now states that both first metatarsophalangeal joints were tender, with painful and markedly restricted motion, and that distal neurovascular status was intact (Lines 71-73). Laboratory results and their reference ranges follow immediately (Lines 73-74).
7. **Comment** Drug regimens and doses were overly detailed, and the histopathology description should be simplified.
Response: Specific doses were removed. Postoperative treatment is described by therapeutic category and clinical purpose: analgesia, protected weight-bearing, wound care, a time-limited oral antibiotic course, resumption of a previously used urate-lowering agent and a short glucocorticoid taper for postoperative inflammatory symptoms (Lines 91-95). Histopathology is presented concisely and confirms findings compatible with gout without malignancy (Lines 96-98).
8. **Comment** The discussion repeated the Introduction, and the meaning of 'wound preservation' is unclear.
Response: The discussion has been rewritten to compare the case with published surgical evidence, quantify postoperative complications, clarify reconstructive indications and discuss metabolic management and limitations (Lines 107-129). The phrase 'wound preservation' was removed; the intended operative goal is now stated precisely as preservation of viable soft-tissue coverage (Lines 84-85).
9. **Comment** The figures were not properly labelled and described.
Response: Figure 1 labelled composite with panels A-F. The revised legend identifies radiographs, the preoperative clinical appearance, intraoperative deposits, post-debulking defects, excised material and postoperative day-21 wound appearance (Lines 188-191).
10. **Comment** Reference 2 is not valid or correctly cited, and the reference list was limited and outdated.
Response: Reference 2 has been corrected to the 2020 American College of Rheumatology guidelines. The list has been expanded and updated to 10 relevant references; References 1-10 appear at Lines 154-186.
11. **Comment** The English required improvement, the narrative was unclear and no acknowledgement was provided.
Response: The manuscript underwent comprehensive language editing in British English, with restructuring for chronological clarity. An acknowledgements section has been added and states 'None' because no non-author contribution required acknowledgement (Lines 134-135).

12. Comment The novelty of bilateral deforming forefoot gout and the contribution of this case were insufficiently established.

Response: The introduction now states that severe bilateral forefoot involvement is not well quantified and has mainly been described in small series and individual reports. It identifies the distinctive combination of prolonged neglected bilateral disease, single-stage limited debulking without bony reconstruction and subsequent histopathological confirmation (Lines 53-58). The discussion directly compares this approach with a recent bilateral case managed by staged excision and reconstruction (Lines 107-111).

13. Comment The manuscript did not explain why aspiration, dual-energy CT or MRI was not performed.

Response: The revised manuscript explicitly states that preoperative aspiration, dual-energy CT and MRI were not performed and explains the diagnostic basis used in this case: longstanding clinical features, marked hyperuricaemia and characteristic radiographs, followed by histopathological confirmation (Lines 76-80). The specific reason for not obtaining those tests was not documented contemporaneously; therefore, we have not inferred an unsupported reason. Their absence is explicitly acknowledged as a limitation (Lines 125-129).

14. Comment The choices of single-stage bilateral surgery, avoidance of arthrodesis or reconstruction, 14 days of antibiotics, postoperative corticosteroids and febuxostat rather than allopurinol required justification.

Response: Single-stage surgery was chosen because both feet were symptomatic and the intended procedure was limited to soft-tissue debulking. Arthrodesis and reconstruction were avoided to limit surgical extent in compromised skin because anatomical reconstruction was not the immediate objective (Lines 81-87). The antibiotic course was an individualised postoperative decision following extensive bilateral dissection and compromised skin (Lines 91-93), while the glucocorticoid taper addressed postoperative inflammatory symptoms (Lines 94-95). Febuxostat was resumed because it was a previously used urate-lowering agent rather than a newly selected first-line treatment (Lines 93-94). The Discussion now clarifies that current guidance generally recommends allopurinol as first-line therapy, treat-to-target titration and anti-inflammatory prophylaxis (Lines 120-123). The original rationale for medication selection was incompletely documented and is acknowledged as a limitation (Lines 125-129).

15. Comment Follow-up was too short and did not report long-term recurrence, urate control, functional recovery, footwear use, return to work or additional surgery.

Response: The revised manuscript reports all available short-term outcomes: wound healing, modest pain and footwear improvement, persistent tenderness and restricted motion, residual tophaceous prominence, continued walking support, serum urate reduction to 12 mg/dL and stable creatinine (Lines 98-104). Longer-term outcomes and recurrence assessment were not available and are explicitly acknowledged as limitations (Lines 104-105 and 125-129). No unsupported long-term outcome has been inferred.

16. Comment Functional improvement was subjective and was not supported by VAS, FFI, AOFAS or another validated measure.

Response: The qualitative outcomes have been described more precisely, including pain, footwear tolerance, joint motion and need for walking support (Lines 100-103). A validated baseline functional score was not prospectively recorded; this is now stated directly in the case narrative and limitations (Lines 104-105 and 125-129).

17. Comment The discussion lacked critical comparison with published evidence and did not adequately explain persistent hyperuricaemia or residual disability.

Response: The discussion now compares limited debulking with staged reconstruction, summarises evidence for pain relief and wound healing, and reports pooled infection, delayed-healing and recurrence rates. It distinguishes immediate soft-tissue goals from reconstructive indications and explains that surgery does not correct the underlying metabolic disease (Lines 107-118). Persistent hyperuricaemia is discussed in relation to longstanding urate burden, short observation and lack of established treat-to-target titration (Lines 118-123).

18. Comment The limitations of the report were not clearly acknowledged.

Response: A dedicated limitations statement now addresses the single-patient design, short follow-up, absence of preoperative crystal analysis and advanced imaging, lack of prospectively recorded functional scores, incomplete documentation of medical-treatment rationale and absence of objective long-term recurrence data (Lines 125-129).

19. Comment The composite figure was crowded; panel sizes, brightness, arrows, cropping, scale and follow-up interval required improvement.

Response: The composite figure has been reformatted with consistent A-F labels, clearer panel balance, improved cropping and uniform visual adjustment. Radiographic markers were enlarged, and the postoperative interval is identified as postoperative day 21. A retrospective measurement scale was not added to the excised specimen because no calibrated scale was included when the photograph was acquired; adding one later would be scientifically inaccurate. The revised Figure 1 is submitted separately, with its legend at Lines 188-191.

- 20. Comment** The title could be renamed to emphasise surgical management or debulking of bilateral deforming forefoot tophaceous gout.
- Response:** We adopted the reviewer's suggested title: 'Debulking surgery for bilateral deforming forefoot tophaceous gout: a case report' (Line 2).
- 21. Comment** The introduction should clarify the rarity and distinctive contribution of the case, include global statistics and explain disease development and prevention.
- Response:** The introduction now reports the 2020 global burden of gout, explains progression from uncontrolled hyperuricaemia to chronic tophaceous disease and emphasises sustained treat-to-target therapy to prevent further deposition and structural damage (Lines 45-51). It also explains that severe bilateral forefoot disease is not well quantified and identifies the distinctive single-stage limited-debulking approach in prolonged neglected bilateral disease (Lines 53-58).
- 22. Comment** The discussion should compare recurrence, wound complications and surgical indications and clarify the roles of debulking, arthrodesis and reconstruction.
- Response:** The discussion now compares the case with recent surgical reports and a bilateral reconstructive case, reports pooled infection, delayed-wound-healing and recurrence rates, and describes when arthrodesis or reconstruction may be appropriate. It explains that limited debulking addressed the immediate local problems but cannot be interpreted as superior to reconstruction (Lines 107-118).
- 23. Comment** Pain score, footwear ability and walking distance should be provided if available.
- Response:** The available functional information has been reported: modest pain improvement, improved footwear tolerance, persistent restricted first metatarsophalangeal motion and continued need for walking support (Lines 100-103). A validated pain or foot-function score and quantified walking distance were not prospectively recorded; this is now acknowledged (Lines 104-105 and 125-129).
- 24. Comment** The manuscript should clarify the choice of febuxostat, colchicine prophylaxis, rheumatology consultation, serum-urate target, monitoring and the role of renal function in drug selection or dosing.
- Response:** The case narrative clarifies that febuxostat was resumed as a previously used agent, not selected de novo over allopurinol (Lines 93-94). The available records did not document the original selection rationale, colchicine prophylaxis, formal rheumatology consultation or renal-based dose selection; these details have not been inferred. Their incomplete documentation is acknowledged as a limitation (Lines 125-129). The discussion now states the evidence-based principles of allopurinol first-line therapy, low-dose initiation, serial titration to serum urate below 6 mg/dL, anti-inflammatory prophylaxis and long-term rheumatology-directed management (Lines 120-123).
- 25. Comment** Three- or six-month follow-up should be reported if possible; otherwise, its absence should be acknowledged.
- Response:** Only the documented short-term follow-up is reported (Lines 98-105). Longer-term follow-up and objective recurrence assessment were unavailable and are explicitly acknowledged in the limitations (Lines 125-129).
- 26. Comment** A photograph of the well-healed scar would enhance the postoperative documentation if feasible.
- Response:** Figure 1F identifies the postoperative day-21 wound appearance after staged suture removal, and the text records healing without dehiscence (Lines 99-101; Figure 1 legend, Lines 188-191). A later scar photograph was not available; therefore, no later image has been inferred or substituted.
- 27. Comment** The references should be updated, and the language should be improved.
- Response:** The reference list has been updated to 10 relevant sources, with most published within the past 10 years and several from 2022-2026 (Lines 154-186). The manuscript has undergone comprehensive language editing in British English, with particular attention to chronology, clarity, concision and removal of repetition.