

Statement of Purpose

The purpose of this study is to emphasize the importance of obtaining pathological specimen in order to distinguish gout from pseudogout due to their nearly identical clinical appearance. The simultaneous presence of pseudogout and gout within the same joint is rare, however, it can occur. Though studies have confirmed cases where both MSU and CPPD crystals were reported in synovial fluid specimens of knees, there has yet to be literature on the simultaneous presence in the foot^{3, 4}. Other studies also suggest that calcium pyrophosphate dihydrate crystals may even be a natural factor associated with tophi maturation¹. This could mean that in individuals with long standing gout tophi, the coexistence of MSU and CPPD crystals may not be so rare after all. Thus, given that the clinical symptoms of both gout and pseudogout may often appear identical, it is imperative that specimens be obtained and analyzed to ensure proper treatment. Although gout and pseudogout within the same joint is rare, once cannot exclude the possibility of this pathology.

Figure 1. (A-C) Pre-op



Case Study



69 year old female with PMH of hypertension, HIV and gout (Uric acid 10.1mg/dL) presents with a chief complaint of right 2nd digit open wound present for greater than 1 week. She reports that the wound started out as a blister which popped, draining blood and purulence, along with gouty tophi. Patient had been treating wound with alcohol and gauze, without success of wound closure. Patient's rheumatologist was managing gout with doxycycline 100mg, Uloric 40 mg, colchicine 0.6 mg daily and indomethacin sparingly. Upon first podiatry visit, the wound was debrided using a sterile #15 blade down to the level of subcutaneous tissue. Due to the close proximity of bone and tendon to the wound bed, surgical intervention was recommended and patient was amenable. Xrays were unremarkable except for soft tissue swelling to the forefoot.

Surgical Procedure

Intraop, wide sharp excisional debridement of the right 2nd digit wound was performed down to bone with excision of gouty tophi. Specimen was sent to pathology. All nonviable soft tissue and tophi was excised and the area was flushed via pulse lavage. The extensor tendon was noted to be damaged due to the significant amount of tophi. The tendon was repaired via 3-0 vicryl and the wound was primarily closed using 4-0 nylon.

Figure 2. (A-D) Post-op



Results

Pathology specimen of tophi from associated wound resulted in both uric acid crystals (gout) as well as calcium pyrophosphate crystals (pseudogout). The wound was with complete closure in 2 weeks. No recurrence of the wound was noted at subsequent postoperative visits. The rheumatologist also managed gout and pseudogout with Uloric 40 mg and colchicine 0.3 mg daily.

Discussion

Gout and pseudogout may present on physical exam in a similar fashion. Although gout and pseudogout within the same joint is rare, one cannot exclude the possibility of this pathology. Appropriate pathology specimens of tophi must be examined in order to confirm diagnosis for a proper treatment plan. Treatment with multispecialists to include rheumatologist and podiatric wound specialist would benefit patients for complete wound healing.

References

