

中文題目：痛風性關節炎病人骨骼肌肉超音波檢查發現與實驗室數據結果兩者的相關性

英文題目：The correlation between musculoskeletal ultrasonographic manifestations and clinical features in patients with gouty arthritis

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Abstract Background : Gouty arthritis was caused by the deposition of monosodium urate monohydrate crystals. Musculoskeletal ultrasonography (MSKUS) is a convenient, costless and straight forward tool to identify anatomical location and severity of inflammation. Here, we retrospectively investigated how rheumatologists applied MSKUS in detecting and treating acute and chronic gouty arthritis.

Methods : This is a retrospective review in 280 patients with gouty arthritis from 2004 to 2017. Ultrasonographic manifestations include joint effusion, synovial proliferation, tenosynovitis, Baker's cyst, double contour sign (DCS), and tophi. Patients received blood tests including blood WCC, serum uric acid, CRP, ESR, eGFR and synovial fluid WCC . Differences were analysed by independent t tests, phi coefficient, Pearson correlation coefficient and Cramer's V Coefficient.

Results : Joint effusion, synovial proliferation, tenosynovitis, Baker's cyst, DCS, and tophi were detected in 75.7%, 45.3%, 20.0%, 9.2%, 42.8% and 23.9% of joints, respectively. Patients with synovial proliferation, tenosynovitis, or DCS had lower synovial fluid WCC ($p = 0.04$, 0.04 , and < 0.01 , respectively). Patients with synovial proliferation had higher prevalence of joint effusion, Baker's cyst and double contour sign ($p < 0.01$, < 0.01 , and < 0.01 , respectively). Patients with tophi had lower serum UA ($p = 0.013$). Patients with renal insufficiency ($eGFR < 90$) were characterized by higher prevalence of Baker's cyst ($p = 0.02$).

Conclusion : We would recognize Baker's cyst, DCS, and tophi as MSKUS manifestations of chronic gout. Synovial proliferation was considered as a transformational change between acute and chronic gout. Patients with chronic kidney disease have an increasing risk of development of Baker's cyst. Early treatment of patients with gouty arthritis and chronic kidney disease help prevent development of chronic joints destructions.