Why is gout so poorly managed?

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Gout has been recognised since ancient times, and we currently have a deep understanding of its pathophysiology. The disease results from a deposit of monosodium urate (MSU) crystals in joint structures and in other, generally periarticular, sites in the form of tophi. High serum uric acid (SUA) is required for the formation of these crystals. The most characteristic features of gout are acute attacks of joint inflammation, which frequently occur at the first metatarsophalangeal joint, although their occurrence in other joints and in bursae is also very common. Oligoarticular, polyarticular, and more protracted and lingering forms of the disease occur, and if untreated or poorly managed, the disease can become very persistent and disabling. Fortunately, we now have highly effective drugs enabling us to deal with gouty joint inflammation and to prevent their recurrence.¹ An unequivocal diagnosis can be obtained by identifying MSU crystals in joint fluid obtained either during the attacks² or at intercritical periods from previously inflamed asymptomatic joints of untreated subjects,^{3,4} or from a tophus. This procedure requires only skill in performing arthrocentesis and familiarity with the use of the polarised microscope, both a part of the core curriculum in rheumatology. The deposited crystals responsible for the disease dissolve when SUA levels are brought back to normal,^{3,5} and the time for total dissolution relates to the duration of the disease; after 1 year of adequate hypouricaemic treatment, crystals have usually disappeared from the joints if the disease duration has not been too long.⁶ In the absence of MSU crystals, attacks of gout are impossible, and the disease can be considered cured. Patients who have formed MSU crystals on one occasion appear to easily form them anew if SUA levels are allowed to rise again, prompting the return of the disease.^{7,8} To avoid this, lifelong hypouricaemic drug treatment is necessary after the crystals have dissolved, although for some patients dietary and lifestyle modifications may suffice. Finally, in an important proportion of patients with gout, hyperuricaemia is a part of metabolic syndrome and the presence of gout should make clinicians aware of associated

morbidities, which are reversible, at least to some extent, by modifying dietary and lifestyle habits. The recent publication of guidelines on gout diagnosis⁹ and management¹⁰ by the European League Against Rheumatism (EULAR), the quality of care indicators from the US,¹¹ and outcome measures for clinical trials¹² outline the current interest in gout.

Despite such a reassuring background, the standard of gout management in practice continues to lag behind the research. A precise diagnosis is the first step for the correct management of any disease. In gout, identification of MSU crystals allows this, as has been stressed in the recently published EULAR guidelines⁹ and quality of care indicators.¹¹ In addition, the technique is consistent when performed by trained personnel.¹³ However, in practice, gout is too frequently diagnosed on clinical grounds and a high SUA level, an approach that appears supported by the frequently referred ACR diagnostic criteria, published in 1977 as *Preliminary criteria for the classification of the acute arthritis of primary gout*,¹⁴ but which have not been revised nor received further validation. Reports showing inadequacies of serum urate-lowering treatment^{15–19} and of gout-related inflammation therapy²⁰ show that in treatment the gap between clinical practice and potential treatment possibilities is large. In this issue of the *Annals of the Rheumatic Diseases*,²¹ we are reminded that according to the recent EULAR recommendations for the management of gout,¹⁰ primary care gout management in the UK is poor.

If the knowledge is widely available, why should gout management be inappropriate? Gout appears to be considered a minor disease by many rheumatologists, and the care of patients with gout often rests on the shoulders of the general practitioner (GP). We searched in the PubMed database for all papers published in the past 10 years on gout, using the MeSH terms “patient care management”, “quality of care” and “gout”, and found 11 papers. Five of these directly investigated the way gout is managed by different medical specialties: two papers audited gout management in primary

care practices,^{22,23} one recent paper conducted a survey of US rheumatologists²⁴ and the remaining two explored treatment trends by both primary care doctors and rheumatologists in China and Mexico.^{25,26} Of interest, in the four papers in which the management of gout by GPs was evaluated, GPs were fully responsible for the management of the disease, including its diagnosis. In contrast, rheumatologists play a leading role in the management of other inflammatory joint conditions such as rheumatoid arthritis (RA). Using a similar search approach as above, we found 61 papers published in the past 10 years relating to the way in which RA is managed by different specialities. Six of those papers centred around management of RA in primary care,^{27–32} 48 papers (79%) reported management by rheumatologists and the remaining 7 compared or included both types of doctor.^{33–39} Many of these papers stress the need for early and easy access to a rheumatologist when RA is suspected; this contrasts sharply with data from the UK, which found that most patients with gout never see a rheumatologist.²¹

Any one of us with sufficient experience has seen (1) patients with less typical clinical presentations posing difficulties for a clinical approach to the diagnosis, (2) patients with severe gout seriously affecting the patient's quality of life, or even its duration, (3) patients undiagnosed or misdiagnosed despite repeated evaluation, and thus (4) have an appreciation how notoriously difficult gout can be to manage. In addition, in the UK, rheumatologists act essentially as the consultants to whom the less typical and difficult cases ought to be referred, but a large proportion of rheumatologists are unfamiliar with synovial fluid analysis for crystal identification. Thus, when they are consulted about a patient with possible gout, they often have to rely on clinical diagnosis, and their accuracy may be no better than that of the GP who made the referral (who is likely to know that urate crystal identification provides an unequivocal, evidence-based diagnosis, and perhaps may think that the rheumatologist's clinical approach to gout is an indication of the way all diseases are approached in his speciality). This relaxed attitude of rheumatologists towards gout may be perceived by GPs and other doctors, stimulating them to take over the care of patients with gout.

Those writing in scientific journals have to support their assertions with evidence, and the available evidence essentially indicates that (1) most patients with gout are cared for at the primary care level, (2) gout is often diagnosed on less accurate clinical

grounds and (3) many rheumatologists have a lack of interest in gout. All these points imply a poor attitude of rheumatologists and other doctors towards gout, and attitudes are often founded on irrational grounds. The attitudes of rheumatologists towards gout may reflect what they saw at their training unit; attitudes of other doctors may simply derive from what they perceive of the rheumatologists' attitudes. Essentially, a positive attitude in rheumatology training units towards gout is badly needed. There may be several reasons why gout is looked down on: (1) a feeling by many rheumatologists that gout is an unimportant condition that keeps them away from more serious matters; (2) because from the academic standpoint gout is an obscure and unimportant disease, it deserves less attention or (3) perhaps the simple frivolous feeling that the disease is out of fashion; these are all difficult to substantiate but likely to be true to some extent. It could also be said that tradition still weighs heavily on the way we approach gout, although the patients, as they have traditionally, continue to experience pain.

Having the knowledge and the tools at our disposal, it is not justifiable to have a mediocre approach to gout, and it is very unfair to the patients, whose pain, more or less, is avoidable. In addition, patients with gout offer rheumatologists a real window to demonstrate a precise, evidence-based approach to all conditions in which this is feasible. It is time that rheumatologists took the lead in the management of patients with gout.

Ann Rheum Dis 2007;**66**:1269–1270.
doi:10.1136/ard.2007.078469

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Accepted 9 July 2007

Competing interests: None declared.

REFERENCES

- Pascual E, Sivera F. Therapeutic advances in gout. *Curr Opin Rheumatol* 2007;**19**:122–7.
- McCarty DJ, Hollander JL. Identification of urate crystals in gouty synovial fluid. *Ann Intern Med* 1961;**54**:452–60.
- Pascual E, Batlle-Gualda E, Martínez A, Rosas J, Vela P. Synovial fluid analysis for diagnosis of intercritical gout. *Ann Intern Med* 1999;**131**:756–9.
- Sivera F, Aragón R, Pascual E. First metatarsophalangeal joint aspiration using a 29-gauge needle. *Ann Rheum Dis* 2007M; doi:10.1136/ard.2007.073460.
- Li-Yu J, Clayburne G, Sieck M, Beutler A, Rull M, Eisner E, Schumacher HR Jr. Treatment of chronic gout. Can we determine when urate stores are depleted enough to prevent attacks of gout? *J Rheumatol* 2001;**28**:577–80.
- Pascual E, Sivera F. Time required for disappearance of urate crystals from synovial fluid after successful hypouricaemic treatment relates to the duration of gout. *Ann Rheum Dis* 2007; doi:10.1136/ard.2006.060368.
- van Lieshout-Zuidema MF, Breedveld FC. Withdrawal of longterm antihyperuricemic therapy in tophaceous gout. *J Rheumatol* 1993;**20**:1383–5.
- Bull PW, Scott JT. Intermittent control of hyperuricemia in the treatment of gout. *J Rheumatol* 1989;**16**:1246–8.
- Zhang W, Doherty M, Pascual E, Bardin T, Barskova V, Conaghan P, et al. EULAR evidence based recommendations for gout - Part I Diagnosis: Report of a task force of the Standing Committee for International Clinical Studies Including Therapeutics (ESCIIT). *Ann Rheum Dis* 2006;**65**:1312–24.
- Zhang W, Doherty M, Bardin T, Pascual E, Barskova V, Conaghan P, Gerster J, et al. EULAR Evidence based recommendations for gout - part ii management: report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCIIT). *Ann Rheum Dis* 2006;**25**:1301–11.
- Mikuls TR, MacLean CH, Olivieri J, Patino F, Allison JJ, Farrar JT, Bilker WB, Saag KG. Quality of care indicators for gout management. *Arthritis Rheum* 2004;**50**:937–43.
- Schumacher HR Jr, Edwards LN, Pérez-Ruiz F, Becker M, Chen LX, Furst DE, Joseph-Ridge N, Schlesinger N, Horowitz Z, Saag K, Boice JA, Yamanaka H. OMERACT 7 Special Interest Group: Outcome measures for acute and chronic gout. *J Rheumatol* 2005;**32**:2453–5.
- Lumbreras B, Pascual E, Frasquet J, González-Salinas J, Rodríguez E, Hernández-Aguado I. Analysis for crystals in synovial fluid: training of the analysts results in high consistency. *Ann Rheum Dis* 2005;**64**:612–15.
- Wallace SL, Robinson H, Masi AT, Decker JL, McCarty DJ, Yu T-F. Preliminary criteria for the classification of the acute arthritis of primary gout. *Arthritis Rheum* 1977;**20**:895–900.
- Riedel AA, Nelson M, Joseph-Ridge N, Wallace K, MacDonald P, Becker M. Compliance with allopurinol therapy among managed care enrollees with gout: a retrospective analysis of administrative claims. *J Rheumatol* 2004;**31**:1575–81.
- Annemans L, Spaepen E, Nash C, Bonnemaiere M, Gilbert T, Malier V. Medical management of chronic gout in the UK and Germany [abstract]. *Ann Rheum Dis* 2006;**65**(Suppl 2):430.
- Pérez-Ruiz F. Treatment of gout before rheumatology consultation is far from that recommended [abstract]. *Ann Rheum Dis* 2006;**65**(Suppl 2):436.
- Mikuls TR, Curtis JR, Allison JJ, Hicks RW, Saag KG. Medication errors with the use of allopurinol and colchicine: a retrospective study of a national, anonymous Internet-accessible error reporting system. *J Rheumatol* 2006;**33**:562–6.
- Sarawate CA, Brewer KK, Yang W, Patel PA, Schumacher HR, Saag KG, Bakst AW. Gout medication treatment patterns and adherence to standards of care from a managed care perspective. *Mayo Clin Proc* 2006;**81**:925–34.
- Neogi T, Hunter DJ, Chaisson CE, Allensworth-Davies D, Zhang Y. Frequency and predictors of inappropriate management of recurrent gout attacks in a longitudinal study. *J Rheumatol* 2006;**33**:104–9.
- Roddy E, Zhang W, Doherty M. Concordance of the management of chronic gout in a UK primary care population with the EULAR gout recommendations. *Ann Rheum Dis* 2007; doi:10.1136/ard.2007.070755.
- Mikuls TR, Farrar JT, Bilker WB, Fernandes S, Saag KG. Suboptimal adherence to quality indicators for the management of gout and asymptomatic hyperuricemia: results from the UK General Practice Research Database (GPRD). *Rheumatology* 2005;**44**:1038–42.
- Pal B, Foxall M, Dysart T, Carey F, Whittaker M. How is gout managed in primary care? A review of current practice and proposed guidelines. *Clin Rheumatol* 2000;**19**:21–5.
- Schlesinger N, Moore DF, Sun JD, Schumacher HR Jr. A survey of current evaluation and treatment of gout. *J Rheumatol* 2006;**33**:2050–2.
- Fang W, Zeng X, Li M, Chen LX, Schumacher HR Jr, Zhang F. The management of gout at an academic healthcare center in Beijing: a physician survey. *J Rheumatol* 2006;**33**:2041–9.
- Vazquez-Mellado J, Espinoza J, Hernandez-Garduno A, Lino L, Burgos-Vargas R. Diagnosis and treatment of gout in Mexico City. Results from a physician survey (in Spanish). *Rev Invest Clin* 2003;**55**:621–8.
- Sueter LG, Fraenkel L, Holmboe ES. What factors account for referral delays for patients with suspected rheumatoid arthritis? *Arthritis Rheum* 2006;**55**:300–5.
- Herman CJ, Allen P, Hunt WC, Prasad A, Brady TJ. Use of complementary therapies among primary care clinic patients with arthritis. *Prev Chronic Dis* 2004;**1**:A12.
- Bannwarth B, Logeart I, Vergult G. Prescribing patterns of rofecoxib in the primary care setting: results of a French survey. *Rev Med Interne* 2004;**25**:710–14.
- Mitchell E, McConahie A, Sullivan F. Consultation computer use to improve management of chronic disease in general practice: a before and after study. *Inform Prim Care* 2003;**11**:61–8.
- Solomon DH, Warsi A, Brown-Stevenson T, Farrell M, Gauthier S, Mikels D, et al. Does self-management education benefit all population with rheumatoid arthritis? *J Rheumatol* 2002;**29**:362–8.
- Spencer-Green G, Spencer-Green E. Nonsteroidal therapy of rheumatoid arthritis and osteoarthritis: how physicians manage treatment failures. *J Rheumatol* 1998;**25**:2088–93.
- Mittendorf T, Merkesdal S, Zeidler H, Graf von der Schultenburg JM, Ruof J. Costs of ambulatory care for RA patients in Germany. *Med Klin (Munich)* 2005;**100**:255–61.
- Lacaille D, Anis AH, Guh DP, Esdaile JM. Gaps in care for rheumatoid arthritis: a population study. *Arthritis Rheum* 2005;**23**:80–4.
- Powell JE, Langley C, Kirwan J, Gubia D, Medel D, Pollack J, et al. Welfare rights services for people disabled with arthritis integrated in primary care and hospital settings: set-up, costs, and monetary benefits. *Rheumatology* 2004;**43**:1167–72.
- Charalambous C, Paschalides C, Sadiq S, Tryfonides M, Hirst P, Paul AS. Weight bearing following intra-articular steroid injection of the knee: survey of current practice and review of the available evidence. *Rheumatol Int* 2002;**22**:185–7.
- Gabriel SE, Wagner JL, Zinsmeister AR, Scott CG, Luthra HS. Is rheumatoid arthritis care more costly when provided by rheumatologists compared with generalists? *Arthritis Rheum* 2001;**44**:1504–14.
- Hulsemann JL. Cooperation between the family physician, rheumatologist, hospital and rehabilitation clinic. Contribution of regional cooperative rheumatic disease centres for total quality management. *Z Rheumatol* 1998;**57**:424–7.
- Criswell LA, Duch CI, Yelin EH. Differences in the use of second-line agents and prednisone for treatment of rheumatoid arthritis by rheumatologist and nonrheumatologists. *J Rheumatol* 1997;**24**:2283–90.