

The role of clinical inertia in suboptimal management of gout

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The article on gout now published in *Swiss Medical Weekly* is very interesting [1]. By means of a careful analysis, the authors have investigated the prevalence of patients affected with gout and the types of approaches used by Swiss primary care physicians (PCPs) for the management of gout. The prevalence of this disease in Switzerland (1%) is closer to those of nearby Italy (0.9%) and France (0.9%), and less than those of UK, Germany and US (1.5–4%) [2, 3]. However, there is no doubt that, despite these differences, gout is increasingly the most common inflammatory arthritis worldwide, especially in men [4].

The paper offers a good opportunity to understand why, despite new recommendations and/or guidelines continually proposed by the scientific societies, the management of gout still remains suboptimal and patients with gout continue to be the least adherent to the therapy among patients with chronic rheumatic diseases [5, 6]. In this study, it is interesting to observe that, although the high percentage (91.6%) of patients with gout were receiving urate lowering therapy, only 57.5% reached the treatment goal of 6 mg/dl (<360 µmol/l) [1]. Furthermore, of the treated patients, only 15% had at least one serum uric acid measurement before and after initiation of urate lowering therapy. These results are not surprising and confirm those observed in other previous studies on the difficulties of healthcare providers in applying treatment recommendations in daily practice [5, 6].

This attitude is common to other chronic diseases and was first defined as clinical inertia in 2001 by Lawrence Phillips, in this manner: “health care providers do not initiate or intensify therapy appropriately during visits of patients with these problems. We define such behaviour as clinical inertia – recognition of the problem, but failure to act” [7]. In gout, this term was used by Maravic et al. to describe the persistent suboptimal management of gout in France [8]. However, it is difficult to establish exactly the responsibility for this behaviour, since some possible candidates are only marginally considered. Probably, at the top of this list there is the still persistent unawareness of the causes of gout. A recent Italian survey involving PCPs, specialists, pharmacists and patients, found that lifestyle was acknowledged to be the main risk factor for gout by nearly 50% of specialists and PCPs, whereas only 13.8% and 12.4%, respectively, considered the role of genetic factors [9]. Uric acid overproduction was deemed

to be the cause of gout by 60% of specialists, but insufficient excretion by only 30%. Finally, PCPs were divided on serum uric acid target levels, since 48.3% said <6 mg/dl (360 µmol/l) and 18.9% <7 mg/dl (420 µmol/l) [9]. This latter aspect is crucial. It is difficult for patients and even for PCPs to fully understand why the normal value cut off of serum uric acid is 7 mg/dl or 6.8 while the target should be <6 mg/dl or, better, <5 mg/l, as in the most recent recommendations.

Classically, the cut off (upper limit) of normal serum uric acid was established on the basis of the saturation point of monosodium urate, which depends on not only urate concentration, but also other factors, mainly including pH and temperature, evaluated in an ideal physicochemical aqueous context such as the plasma, which is considered to be saturated with urate when its level reaches the solubility limit of approximately 6.8 mg/dl (405 µmol/l) [10]. However, in synovial fluid, the crystallisation is facilitated not only by pH and temperature, but also by other promoting factors. On the other hand, many epidemiological studies have clearly indicated that the cut-off risk for significant associations with the most relevant comorbidities is nearer to 6 mg/dl than 7 mg/dl [11]. Thus, some experts have proposed lowering the normal range of serum uric acid to 6 mg/dl [10, 11]. It is possible that this simple revision could greatly contribute to improving the compliance with the therapeutic target for gout.

The need to improve strategies in order to obtain patients' adherence are brought clearly into focus by the very recent French recommendations for the management of gout, which detail the overarching principles the major points that PCPs and specialists should keep in mind to obtain the best results [12]. It was clearly stated that the treating physician needs to take the time to inform and educate the patient [12]. The importance of adequate education was clearly demonstrated by a very interesting study made in Nottingham, in which after a nurse-led initial treatment, >90% of patients had continued on urate lowering therapy at 5 years with excellent adherence and >86% of patients met the EULAR treatment target for serum uric acid at 5 years [13]. These findings suggest that personalised interactive education about gout and full involvement of patients in management decisions results in improved long-term persistence and adherence.

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At present, for the effective management of gout, health-care providers can have all the best tools for both the diagnosis and the treatment. But they should make the time to apply them.

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References

- Meier R, di Gangi S, Valeri F, Rosemann T, Zechmann S, and the FIRE study group. Gout management in Swiss primary care - a retrospective observational study. *Swiss Med Wkly.* 2020;150:w20209. doi: <http://dx.doi.org/10.4414/smw.2020.20209>. PubMed.
- Annemans L, Spaepen E, Gaskin M, Bonnemaire M, Malier V, Gilbert T, et al. Gout in the UK and Germany: prevalence, comorbidities and management in general practice 2000-2005. *Ann Rheum Dis.* 2008;67(7):960-6. doi: <http://dx.doi.org/10.1136/ard.2007.076232>. PubMed.
- Singh JA, Gaffo A. Gout epidemiology and comorbidities. *Semin Arthritis Rheum.* 2020;50(3S):S11-6. doi: <http://dx.doi.org/10.1016/j.semarthrit.2020.04.008>. PubMed.
- Richette P, Bardin T. Gout. *Lancet.* 2010;375(9711):318-28. doi: [http://dx.doi.org/10.1016/S0140-6736\(09\)60883-7](http://dx.doi.org/10.1016/S0140-6736(09)60883-7). PubMed.
- Kuo CF, Grainge MJ, Mallen C, Zhang W, Doherty M. Rising burden of gout in the UK but continuing suboptimal management: a nationwide population study. *Ann Rheum Dis.* 2015;74(4):661-7. doi: <http://dx.doi.org/10.1136/annrheumdis-2013-204463>. PubMed.
- Punzi L, Scanu A, Spinella P, Galozzi P, Oliviero F. One year in review 2018: gout. *Clin Exp Rheumatol.* 2019;37(1):1-11. PubMed.
- Phillips LS, Branch WT, Jr, Cook CB, Doyle JP, El-Kebbi IM, Gallina DL, et al. Clinical inertia. *Ann Intern Med.* 2001;135(9):825-34. doi: <http://dx.doi.org/10.7326/0003-4819-135-9-200111060-00012>. PubMed.
- Maravic M, Hincapie N, Pilet S, Flipo R-M, Lioté F. Persistent clinical inertia in gout in 2014: An observational French longitudinal patient database study. *Joint Bone Spine.* 2018;85(3):311-5. doi: <http://dx.doi.org/10.1016/j.jbspin.2017.03.013>. PubMed.
- Punzi L, Medea G. Understanding and perceptions of gout: an interdisciplinary assessment among patients, physicians and pharmacists in Italy. *Reumatismo.* 2020;72(1):31-43. doi: <http://dx.doi.org/10.4081/reumatismo.2020.1227>. PubMed.
- Bardin T. Hyperuricemia starts at 360 micromoles (6 mg/dL). *Joint Bone Spine.* 2015;82(3):141-3. doi: <http://dx.doi.org/10.1016/j.jbspin.2015.01.002>. PubMed.
- Desideri G, Castaldo G, Lombardi A, Mussap M, Testa A, Pontremoli R, et al. Is it time to revise the normal range of serum uric acid levels? *Eur Rev Med Pharmacol Sci.* 2014;18(9):1295-306. PubMed.
- Pascart T, Latourte A, Flipo R-M, Chalès G, Coblentz-Baumann L, Cohen-Solal A, et al. 2020 recommendations from the French Society of Rheumatology for the management of gout: Urate-lowering therapy. *Joint Bone Spine.* 2020. [Online ahead of print]. doi: <http://dx.doi.org/10.1016/j.jbspin.2020.05.002>. PubMed.
- Abhishek A, Jenkins W, La-Crette J, Fernandes G, Doherty M. Long-term persistence and adherence on urate-lowering treatment can be maintained in primary care-5-year follow-up of a proof-of-concept study. *Rheumatology (Oxford).* 2017;56(4):529-33. doi: <http://dx.doi.org/10.1093/rheumatology/kew395>. PubMed.