Response to: ‘Correspondence on ‘Ultrasound shows rapid reduction of crystal depositions during a treat-to-target approach in gout patients: 12-month results from the NOR-Gout study’ by Hung et al

We appreciate the interest by Hung et al in our article describing the rapid reduction of ultrasound-detected crystal depositions in gout during 12 months of treat-to-target follow-up on urate-lowering treatment (ULT).

Hung et al comment on the lack of control group in our study, and they suggest a double-blind, controlled study to explore the effectiveness of ULT, and they comment on the lack of information regarding blindness of operators and participants. We certainly agree on a randomised controlled trial (RCT) being necessary to confirm our findings, which are based on an observational study without a control group, where neither sonographers nor patients were blind to the treatment. However, since in addition to our study, several smaller studies have shown the reduction of urate deposits during ULT, and given the strong recommendations to reduce serum urate levels in gout to a target, a long-lasting RCT with a control group not treated according to current guidelines, at least in Scandinavia, seems not ethically acceptable to patients.

In our study, we did not have focus on the different urate-lowering drugs applied but rather on whether patients achieved the treatment target of <6 mg/dL. In addition, all our patients were treated with either allopurinol or febuxostat, and none of the patients used probenecid or benz bromarone. The group of patients with tophi had a more ambitious treatment target of <5 mg/dL but accounted for less than 20% of patients, making meaningful conclusions in this cohort difficult.

There is no agreement on how many joints and tendons to examine by ultrasound when the load of depositions of crystals is assessed. We agree that additional joints and tendons could be explored with ultrasound, giving a more comprehensive examination of regions reported to be potential locations for depositions. We have, however, examined many joints, tendons and entheseal areas, determined after careful literature research as well as discussions with experts in the field. A larger array of localisations would not be feasible in clinical practice as in our study but may be useful in other research settings.

The suggestion of including erosions as an outcome measure is relevant. Our study describes erosions of the medial part of the first metatarsal head to be present in about 60% of the patients. However, as could be expected, there was no change of the score of these erosions during the study. Thus, even if description of erosions is of interest to indicate the severity of the disease, it may not be appropriate as an outcome for treatment response.

Our study was performed at the Department of Rheumatology at Diakonhjemmet Hospital, Oslo, Norway, with inclusion between 2015 and 2018. The paper describes most of the inclusion criteria, and important exclusion criteria were severe comorbidity, including heart failure (New York Heart Association III-IV) or kidney failure (eGFR <45 mL/min, chronic kidney disease stage 3B). We thank for the interest in our study and will provide more clinical results from our study in future publications, including detailed information about treatment, clinical assessments and outcomes.

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