

Reply to the comment on: Bilateral subacromial- subdeltoid bursitis in elderly patients: a diagnostic challenge

by Slouma *et al.*

Sirs,

We have read with interest the comments from Slouma *et al.* regarding our recent study about the ultrasound (US) shoulder assessment of calcium pyrophosphate disease (CPPD) among patients with suspected polymyalgia rheumatica (PMR) (1). In their correspondence, the authors highlighted two important points. First, the US characteristics of subacromial-subdeltoid (SAD) bursitis were not detailed in our study. The authors suggested to check for the existence of homogenous hyperechoic nodular or oval deposits within the bursae (2). We agree that search for such US features could be observed in clinical practice for CPPD diagnosis. However, to our knowledge, the reliability of such US feature of CPPD was not evaluated in a diagnostic study. In the meta-analysis of Gamon *et al.*, only one study analysed shoulders without description of shoulder bursae (3). In this study, only 28% of patients had hyperechoic deposits in synovial fluid (SF). This finding is in accord with a recent OMERACT study. Filippou *et al.* found that one third of patients with CPPD had hyperechoic deposits in SF of knees and/or wrists (4) suggesting a low sensitivity for the diagnosis. In our clinical practice, hyperechoic deposits into shoulders bursae are not specific of CPPD and can be observed in cases of hydroxyapatite calcifications or long-term bursitis associated with tendinitis or gleno-humeral osteoarthritis. This low diagnostic performance of such US features suggested to not use those features for discriminating PMR that CPPD.

The authors also raised another important point. They mentioned that US of knees or wrists can be more useful for CPPD. We fully agree that US of knees and wrists are the best sites to detect CPPD.

In two previous studies, we have shown that US calcifications of hyaline cartilage and fibrocartilage of knees and wrists had an excellent specificity and sensitivity for the CPPD diagnosis with a better diagnostic performance than plain radiography (5, 6). We agree that adding US of knee can be useful in case of suspicion of CPPD among PMR patients notably when the acromioclavicular (AC) joint assessment did not reveal typical US features of chondrocalcinosis. However, assessment of only knees for the diagnosis of CPPD among patients with inflammatory shoulders pain appears to be insufficient. After performing a full-body US screening among elderly patients with polymyalgic symptoms, Falsetti *et al.* observed that 78% of CPPD patients had menisci calcifications (7). Thus, adding US assessment of AC joints might be useful in clinical practice. Moreover, the interobserver and intra-observer kappa values of AC joint for CPPD are moderate to excellent according to the OMERACT (8).

In conclusion, these findings suggest that analysis of AC joint can be useful among patients with polymyalgic symptoms for CPPD diagnosis. When the analysis is doubtful, the US assessment of knees and/or wrists represents an alternative. Nonetheless, others studies are mandatory to better determine the diagnostic accuracy of AC joint analysis in PMR suspected patients.

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Competing interests: none declared.

Clin Exp Rheumatol 2021; 39 (Suppl. 128): S16.

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