From Magic to Strategic & Logic in Musculoskeletal Ultrasonography: HocUS, PocUS & FocUS

To the Editor:

We have read with great interest the recently published article by Chen et al (1) in Pain Physician. The authors have proposed an alternative method for ultrasound (US)-guided medial knee joint injection. They describe the out-of-plane approach as safe and effective, especially in those who are obese and have history of failed superolateral and suprapatellar knee injections (1).

We agree with the authors that US examination i.e. point-of-care ultrasonography (pocUS) should initially/promptly be used at the decision making process for 'guiding' the whole procedure (2,3). In this aspect, we remind that 'sono-palpation' could have significantly been contributory/additive for localizing the correct injection area(s) when compared to only asking the patients verbally (4). Further, the lack of US examination for the pes anserine region also seems to be an important drawback since not few patients with the described symptoms in the study usually end up locating that particular zone more painful than the other knee compartments in daily clinical practice (5).

Second, it is noteworthy that for precise targeting, in-plane approach needs to be preferred as one can never be sure which part of the needle corresponds to the hyperechoic dot seen on the US screen (6). This is true for what the authors try to describe as 'needle tip' in their Figure 2 as well. Herein, one advantage of out-of-plane approach or, in other words, one reason to use it during the injection would be to trace a shorter distance with the needle, possibly trying to cause less

pain. However, considering the fact that the authors have also/even used a 3.5 inch spinal needle in some patients, this does not seem to be the actual idea why they performed the procedures through an out-of-plane approach.

Last but not least, despite the fact that the authors have nicely/sonographically uncovered several underlying causes as possible pain generators in the medial compartment, applying the same 'untargeted' procedure for each and every case does not comply with their (selective) diagnostic philosophy. Once again, under the 'guidance' of substantial US examination, we suggest to focUS on specific structure(s) instead (7).

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REFERENCES

- Chen Y-T, Yun PH, Sutton AJ, D Silva KM, Kohler MJ. The ultrasound-guided anteromedial joint line approach: A targeted corticosteroid injection technique for patients with medial knee pain. Pain Physician 2022; 25:E319-E329.
- Ricci V, Özçakar L. From "Ultrasound imaging" to "ultrasound examination": A needful upgrade in musculoskeletal medicine. Pain Medicine 2020; 21:1304– 1206.
- 3. Sekizkardeş M, Aydin G, Özçakar L. Ultrasound-guided shoulder injection or

- ultrasound guides the shoulder injection?: Standard Versus state-of-the-art. *Am J Phys Med Rehabil* 2018; 97:e46.
- Özçakar L, Ata AM, Kaymak B, Evans S, Kara M. One step further in "sonopalpation" during ultrasound imaging: "self-palpation". Pain Medicine 2018; 19:411.
- Malas FÜ, Kara M, Kaymak B, Akıncı A, Özçakar L. Ultrasonographic evaluation in symptomatic knee osteoarthritis: Clinical and radiological correlation. Int J Rheum Dis 2014; 17:536-540.
- De Muynck M, Parlevliet T. Basic principlesof ultrasound guidance. In: Özçakar L, Franco F, Vincenzo R, Ke-vin C, Eda G, Gi-Young P, editors. Ultrasound Imaging and Guidance for Musculoskeletal Interventions in Physical and Rehabilitation Medicine. 1st ed. Milan (Italy): Edi-ermes; 2020. pp. 192–196.
- Ricci V, Özçakar L, Galletti L, Domenico C, Galletti S. Ultrasound-Guided Treatment of Extrusive Medial Meniscopathy: A 3-Step Protocol. J Ultrasound Med 2020; 39:805–810.