



Comment on “Efficacy of a single intra-articular injection of ultra-high molecular weight hyaluronic acid for hip osteoarthritis: a randomized controlled study”

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To the Editor,

We read with great interest the study by Clementi et al. [1] that would like to explore the efficacy of a single intra-articular injection of ultra-high molecular weight hyaluronic acid in patients with hip osteoarthritis. Actually, we believe that investigating just patients' clinical status using VAS and WOMAC scale should have been supported by further information. In fact, in order to have more data that could influence the recent clinical practice, it is important to consider also the effect that the intra-articular injection of ultra-high molecular weight hyaluronic acid could have on walking biomechanics using an objective measurement tool as gait analysis. In our opinion, the work by Clementi and colleagues is very important and useful especially for the long-term follow-up. Osteoarthritis is a theme currently representing a hot topic because the number of people affected by this pathology in the world is growing and this situation is a burden for healthcare system. Hence, modern medicine will meet, more and more, this issue. From this point of view, we believe that osteoarthritis management and rehabilitation should be performed by objectifying functional alterations using movement analysis instrumentations. The use of gait analysis should be desirable during diagnosis and follow-up [2]. Gait analysis is able to assess different walking patterns in patient with osteoarthritis of the lower limbs, whereas the radiology can evaluate the status of the joint's structures. Moreover, gait analysis allows to identify

the precise altered sub-phase of the walking cycle, permitting adequate prescription of a rehabilitation protocol, giving to the clinician information about kinematic and kinetic alterations and also about the muscle activity. Finally, gait analysis is easily applicable to the most of patients, without side effects. Hence, this tool is ideal for repetitive follow-up evaluations and allows assessing any variations of walking biomechanics over time. Furthermore, gait analysis examinations could represent very valid outcome measurements in order to understand the efficacy of injection therapy to treat hip osteoarthritis [3]. These evaluations should be considered as a completion of clinical assessment, and their use should be always considered in rehabilitation of osteoarthritis.

Compliance with ethical standards

Conflict of interest The author declare that they have no competing interests.

References

1. Clementi D, D'Ambrosi R, Bertocco P, Bucci MS, Cardile C, Ragni P, Giaffreda G, Ragone V (2017) Efficacy of a single intra-articular injection of ultra-high molecular weight hyaluronic acid for hip osteoarthritis: a randomized controlled study. *Eur J Orthop Surg Traumatol*
2. da Silva HGPV, Zorzi AR, da Silva HPV, de Miranda JB. (2017) Gait analysis in short-term follow-up of medial opening wedge high tibial osteotomy. *Eur J Orthop Surg Traumatol*
3. Meyer CA, Corten K, Fieuws S, Deschamps K, Monari D, Weseling M, Simon JP, Desloovere K (2015) Biomechanical gait features associated with hip osteoarthritis: towards a better definition of clinical hallmarks. *J Orthop Res* 33:1498–1507

The original version of this article was revised: The first and last names of the authors were interchanged in the online published article.

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