



## Invited Commentary

**Commentary on “The efficacy and safety of extracorporeal shockwave therapy in knee osteoarthritis: A systematic review and meta-analysis” (Int J Surg. 2020 Jan 21; 75: 24–34)**


## ARTICLE INFO

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Knee osteoarthritis (OA) is one of most common inflammatory disorders for knee joint among the elderly population. It often manifests with severe pain, stiffness, limitation of joint movement, and disability. An epidemiological study showed that about 30% of all adults have radiological signs of OA, 8.9% of the adults population has clinical significant OA of the knee or hip [1]. And the probability of OA increases with age. At present, the treatment of knee osteoarthritis is divided into surgical and conservative methods. However, surgical treatments are generally considered only when knee osteoarthritis reaches its advanced stage. Hence, non-operative treatments are often useful for patients with “early” stages. It has been reported that extracorporeal shockwave therapy (ESWT) can be used to treat patients with knee OA [2,3]. Limited data on the ESWT for the treatment of knee OA are, however, available. Authors investigated the effect and safety of ESWT for the treatment in patients with knee OA [4]. The present meta-analysis indicated that ESWT was associated significant reduction of pain score at 4 weeks, 8 weeks and 12 weeks. There were significant differences between the two groups in terms of the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) Index [5] at 4 weeks 8 weeks and 12 weeks. However, this article [4] raised some concerns for us.

In their study, WOMAC and the Lequesne index were applied to evaluate the functional outcome. However, these two questionnaires also contain pain score, so there is a low level of specificity for the assessment of knee function. Measurement of range of motion (ROM) is a more promising method which can be divided into different types such as forward flexion, external rotation, internal rotation and abduction. Perhaps ROM can be analyzed by a forest plot to reflect the functional outcome. Many professional societies suggest the use of nonsteroidal anti-inflammatory drugs (NSAIDs) for primary pharmacologic management of knee OA. NSAIDs is associated with a wide

variety of adverse effects. Thus, effective analgesia can reduce the consumption of NSAIDs as well as the adverse effects. Discussion focused on pain management without consideration on NSAIDs consumption. I think they misunderstood pain control and no relevant data have been shown in text. At last, three randomized controlled trials and three cohort studies were included in meta-analysis and subgroup analysis should be performed.

**Provenance and peer review**

Invited Commentary, internally reviewed.

**References**

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