

## **Reviewer 1**

**Conclusion:** Minor revision

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

Article title "Observation of the changes of serum inflammatory factors and miR-145 expression in patients with osteoarthritis before and after treatment and its clinical value" deal an important issue of osteoarthritis. This clinical study aimed to observe the changes and clinical value of serum inflammatory factors and miR-145 expression in patients with osteoarthritis before and after treatment. The authors concluded that miR-145 and inflammatory factors have certain diagnostic value in osteoarthritis, and it is expected to become a potential indicator for the diagnosis and evaluation of osteoarthritis in the future. This is an interesting and innovative study. Methods are adequate and the results are well presented. Only minor revision is needed to improve the manuscript. In the discussion section missing adequate references. Please provide as follow: "Many clinical workers use K-L grading to evaluate the therapeutic effect of patients with osteoarthritis, but the K-L grading depends on imaging, the effect of radiation on the human body and the medical expenses are high, and it takes a long time" Please quote the following recent and interesting paper: Expression of  $\beta$ -defensin-4 in "an in vivo and ex vivo model" of human osteoarthritic knee meniscus. Knee Surg Sports Traumatol Arthrosc. 2012 Feb;20(2):216-22. "The pathogenesis of osteoarthritis is complex, especially primary osteoarthritis" Please quote the following recent and interesting paper:  $\beta$ -Defensin-4 (HBD-4) is expressed in chondrocytes derived from normal and osteoarthritic cartilage encapsulated in PEGDA scaffold. Acta Histochem. 2012 Dec;114(8):805-12. "At present, the cause of osteoarthritis is not clear, it may be related to the age span of our subjects and the long course of osteoarthritis" Please quote the following recent and interesting paper: Asymmetrical seeding of MSCs into fibrin-poly(ester-urethane) scaffolds and its effect on mechanically induced chondrogenesis. J Tissue Eng Regen Med. 2017 Oct;11(10):2912-2921. "miR-145 knockout can also inhibit the proliferation /

differentiation of osteoclasts, induce osteoclast apoptosis” Please quote the following recent and interesting paper: Chondrocyte-like apoptosis in temporomandibular joint disc internal derangement as a repair-limiting mechanism. An in vivo study. Histol Histopathol. 2009 Mar;24(3):293-8. In the conclusion section please specify better the clinical relevance of your work.

Reply: Thanks for your comments. We have added the above 4 literatures in this article.

## **Reviewer 2**

**Conclusion:** Minor revision

**Scientific Quality:** Grade C (Good)

**Language Quality:** Grade B (Minor language polishing)

FROM UR STUDY IT IS NOT CLEAR IF YOU EXCLUDED RHEUMATOID ARTHRITIS OR OTHER INFLAMMATORY ARTHRITIS AS IT CAN RESULT IN FALSE POSITIVE TESTS?

Reply: Thanks for your comments, we have added the corresponding exclusion criteria according to your requirements.

## **Reviewer 3**

**Conclusion:** Major revision

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

-Add more on the basic of this disease in the introduction -Discuss role of imaging and ultrasound using these ref -Abdel Razek AA, Al Belasy F, Ahmed W, Haggag M. Assessment of articular disc displacement of temporomandibular joint with ultrasound. J Ultrasound 2015;18:159-163. -Razek AA, Fouda NS, Elmetwaley N, Elbogdady E. Sonography of the knee joint. J Ultrasound 2009;12:53-60. -English language correction through the manuscript -Update of references as most of references are old using these ref -Razek AA, El-Basyouni SR.

Ultrasound of knee osteoarthritis: interobserver agreement and correlation with Western Ontario and McMaster Universities Osteoarthritis. Clin Rheumatol 2016;35:997-1001.

Reply: Thank you for your Suggestions. We have added the disease information and the application of ultrasound in osteoarthritis in the introduction according to your opinions