Reviewer’s report

Title: Cellular pharmacodynamic effects of Pycnogenol® in patients with severe osteoarthritis: a randomized controlled pilot study

Version: 0 Date: 16 Feb 2017

Reviewer: Sonja Maria Walzer

Reviewer’s report:

In this study the authors describe the cellular pharmacodynamic effect of pycnogenol in serum, synovial fluid and chondrocytes in OA patients on gene expression and changes of specific markers like MMPs. Pycnogenol was given over 3 weeks to patients suffering from OA prior to the surgical intervention of joint replacement. The used methods are well described and the clinical application of pycnogenol and the relevance of the pharmacodynamic effect is of interest for the musculoskeletal research community.

- Do the authors think that a three weeks intake is representing the effect of pycnogenol on OA? Are there any short time effects shown in the literature and will this effect improve the patients outcome according to the progression of the OA? Which benefit is expected for the patients?

- Which effect would the authors expect given this product to OA patients over 1 year? Compliance? When will be the right point of time to start? Are there any studies about the safety of the substance?

- Are there any effects/findings beside inflammation?

- According to the design: There is no placebo group included.

- The authors are choosing patients with severe OA. Which long time benefit do the authors expect for patients with severe OA? (outcome measures,..... )

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review? If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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