Reviewer’s report

Title: The influence of bisphosphonates on human osteoblast migration and integrin αVβ3 / tenascin C gene expression in vitro

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Reviewer: Max Heiland

Reviewer’s report:

The authors present a well designed study an a well written paper on the effect of different bisphosphonates on osteoblast adhesion and migration.

By scratch wound cell culture experiments the overall effect of bisphosphonates on migration and adhesion has been evaluated. Furthermore, as an important protein of cell adhesion and regulator of cell metabolism, Integrin αVβ3 gene expression has been quantified. Another, less frequently investigated gene is Tenascin C, an important regulator of physiological wound healing.

The results of the cell culture and gene expression study suggest a negative effect of bisphosphonates on osteoblasts’ adhesion and migration.

With respect to delayed wound healing, these data support clinical findings and provide an important insight into the pathophysiology of bisphosphonates. A more detailed presentation of the results would be helpful, e.g. by an additional table presenting the PCR data. If the authors are able to correct this minor point, these findings should be considered for publication.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.