Reviewer’s report

Title: Systemic zoledronate treatment both prevents resorption of graft bone and increases the retention of new formed bone during revascularization and remodelling. A bone chamber study in rats.

Version: 1 Date: 20 April 2006

Reviewer: Dominique P Pioletti

Reviewer’s report:

Systemic zoledronate treatment both prevents resorption of graft bone and increases the retention of new formed bone during revascularization and remodeling. A bone chamber study in rats by Ånstranda et al.

General comments

This is a concise and well-written manuscript which checks the hypothesis that systemic zoledronate can influence the remodeling following a bone graft. The only major aspect is related to the originality of this work as similar studies were performed by the authors with only the bisphosphonate being different (zoledronate instead of alendronate). It would be necessary to justify more the need to perform the present study.

Specific comments

Minor aspects concern technical points.

1) From the 10 donor rats, twenty grafts were obtained. Were the grafts obtained from the same rat used systematically as control and treated in the hosts?

2) The way the graft is placed in the chamber is not clearly described. Were the grafts placed in similar position each time as the contact surface between the graft and bone may influence the remodeling process.

3) In the results, it is not easy to understand what the authors mean by the remodeled area.

4) Conclusion should be replaced by Discussion.

5) As it could have been expected, the results obtained confirm the previous results obtained with alendronate. As previously mentioned, it would be necessary to better justify the study than only using a different bisphosphonate.

6) The last paragraph is not very conclusive.

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No