Author’s response to reviews

Title: Analysis of Orthopedic Surgery of Bone Metastases in Breast Cancer Patients

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Author’s response to reviews: see over
Dear editor,

Thank you for the reviewers’ reports. We changed the manuscript according to the reviewers’ comments. We would like to comment the questions and annotations:

Reviewer: Prof. Leithner
Major compulsory revisions:
1. According to Bauer et al. we found that pathological fracture was a negative prognostic factor in the extremity group. In the spinal group the pathological fracture was not a negative prognostic factor. We added this fact in the manuscript.
2. The reviewer is right. These 9 patients had been in the group of long survivors. So we think this is a bias. These patients had a more limited disease and had been in a better general condition and hence have been treated more aggressively. We are also convinced that this is an important aspect of this study and therefore we deepened the discussion in respect to that point. A multivariant analysis would have needed more patients than just these 9 in the group.
3. Our data is drawn from 1980 to 2005. Hormon receptor status was not available for the whole time. Therefore a statistical analysis is not possible. The power of the study is not enough to differentiate histological types in statistical significancy.
4. We changed the surgical term using the definition by Enneking. The reviewer is right concerning the resection method. The terms “radical” and “wide” were not correctly used.
5. We added the limitation that systemic therapies and radiological protocols have changed over the follow up time. Therefore a differentiation of this parameters is not possible.
6. Every obviously malignant tumor also in patients with none primary cancers does need a biopsy. We only exclude in our eyes are palliative patients or emergency cases.

Minor issues:
1. and 2. was changed.
3. We corrected to “The mean age of the 115 patients at the time of operation...”
4. The reviewer is right. Our message about the biopsies was unclear. The other seven additional cases were performed CT-guided. We changed that in the text.

Reviewer: Prof. Akiyama
1. We changed all of the abbreviations and clarified them.
2. We explained the surgical margins and applied the definition by Enneking.
3. The surgical margins were clarified. The wide resection, using the definition by Ennking, means the tumor resection in sane tissue.
4. The local recurrence of the primary tumor was found in 6 of the 115 patient. 3 of these patients have died at the end of our study period, 3 were still alive. The number of patients is not enough for a statistical analysis. We would like to note that local recurrence does not change the strategy of surgical strategy in bone metastases e.g. in case of a fracture.
5. The radiation therapy was performed by different departments over a period of 25 years. The protocols varied in the different departments and over the time.
6. Similar to the question of the other reviewer we added the information about the difference between spine and limb cases. Due to the fact, that most of our patients had R1 or R2 resectionss in both locations (spine and extremity) the same margins had been obtained. So the reviewer is in principle right, that the margins are different in spine and limb. But our data does not allow a separate statistical review.

We thank both reviewers for their helpful analysis and review of our manuscript. The performed revisions are an important improvement. We hope that the manuscript ca be accepted in this form.

Sincerely yours

Bernd Wegener