Reviewer’s report

Title: Reconstruction with a Novel Combined Hemipelvic Endoprosthesis after Resection of Periacetabular Tumors Involving the Sacroiliac Joint: A Report of 25 Consecutive Cases

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Reviewer: Pietro Ruggieri

Reviewer's report:

The paper reported the results of 25 cases of pelvic reconstructions with a prarticular hemipelvic prostheses after resection of primary and metastatic bone tumor of the pelvis.

The paper is very interesting and the topic is new and very debated in orthopedic oncology.

The paper is well written, is is clear to read and the data reported are accurated and well described.

Moreover the series is large for this type of surgery.

I think the paper need just some clarifications:

Methods:
* "2) metastatic diseases which were deemed treatable by the attending physician": It is better to clarify, as the Authors rightly reported in the discussion that this procedure is recommended for patiens with solitary metastasis or well-controlled tumor.
* "3) an open biopsy resulted in contamination by tumor cells": what this means? It is not clear.
* "Patients with primary sarcomas received 2 cycles of chemotherapy preoperatively, and 4-6 cycles postoperatively": The series included also chondrosarcoma, the Authors means that also for this histology do the same chemotherapy? They have to clarify that chemotherapy depend of histology.
* "For metastases, marginal and intralesional resections were both considered acceptable": if it is a solitary metastasis wide margins as in primary tumor cold be achived with the intent to free the patients from the disease.
  * "Patients were kept at bed rest for approximately 8 weeks": why they have to bed rest for 8 weeks? They can walk with cast in ambuction, with no movement of the hip and no weight bearing as soon as the can.

Results:
* In all the paper are not clear the margins and how they are related to local recurrence. The Authors have to clarify how many local recurrence are related to marginal or intralesional margins.
* "A total of 9 debridement surgeries were performed in addition to the administration intravenous antibiotics. Two patients required prosthesis removal without further reconstruction": How many patients healed? Haw many had cronic infection? How many had hemipelvectomy for infection?
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.

No

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.

I am able to assess the statistics

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