

Response to reviewers:

Manuscript NO.: 42883

Column: Case Report

Title: The Successful Management of Extensive Transmural Stage IV Cardiac Lymphoma with Chemotherapy Dose Reduction Guided by Cardiac Imaging.

Dear Dr. Fang-Fang Ji

Science editor World Journal of Clinical Cases

Thank you for reviewing our manuscript entitled: The Successful Management of Extensive Transmural Stage IV Cardiac Lymphoma with Chemotherapy Dose Reduction Guided by Cardiac Imaging.

We also wish to thank the reviewers for their review and valuable comments.

Please find below and point by point response to the reviewer's comments.

Best regards,

Reviewer 1:

* The Authors present the case of an 18-year-old male with diffuse large B-cell lymphoma involving the myocardium and both atria who was successfully treated with chemotherapy guided by cardiac imaging. Malignant lymphoma with cardiac involvement is difficult to diagnose and treatment selection decisions can be challenging, because patients usually present with atypical disease involvement, the incidence is low and the prognosis is often severe. The paper is interesting and the case report is well described and well documented. Unique annotation : as you make reference to the role of cardiac imaging I would suggest that in the discussion you also mention the role of 18F fluorodeoxyglucose positron-emission tomography/computed tomography (18F-FDG PET/CT) that is a standard imaging tool in staging as well as response evaluation for lymphoma.

**** Dear Reviewer, Thank you for your review and comments.**

We have mentioned the role 18F fluorodeoxyglucose positron-emission tomography/computed tomography (18F-FDG PET/CT) in the evaluation of lymphoma (pages 11-12).

Reviewer 2:

* Dear authors, The title of the manuscript does not reflect its content accurately and should be changed. Here you are describing the case of cardiac involvement of disseminated diffuse large B-cell lymphoma and not of Stage IV cardiac lymphoma. In your work, you touched upon an important clinical problem: an attempt to minimize the risk of a hollow organ perforation (in this case, the heart) in total/subtotal lesion to its wall by a lymphoma with a high index of proliferative activity. The current literature does not cover this problem sufficiently. Tumors with a high index of

proliferative activity, such as diffuse large B-cell lymphoma or Burkitt lymphoma, can affect hollow organs (heart or intestines) and respond well to specific therapy, but at the beginning of the therapy a risk exists of a fatal perforation of the organ due to rapid tumor destruction. A highly attractive approach to minimize this complication is initiation of a low intensity chemotherapy followed by the standard full-dose regimen. However, it is not a standard one, due to the reduced probability to achieve the complete remission of aggressive lymphomas. The approach is an individual, with weighting the risk of the organ perforation complicating the therapy (fatal in case of heart lesion) on the one hand, and of not getting the lymphoma remission which can also be fatal in the long term. The decision is made based on the use of modern imaging techniques (to assess damage to the organ wall) and the experience of the doctor. Using modern imaging techniques allows an adequate therapy correction and assessment of its effect. To select the most appropriate method and to standardize the increase in the dose of chemotherapy optimally, they should perform comparative studies. There are some grammatical errors and inaccuracies that can be corrected easily. In particular, reference 27 is not applicable in the phrase "and cardiac rupture resulting from rapid tumor destruction (22, 27)" because in the case described by Shah et al. the patient did not have cardiac rupture. The sentence "Transesophageal echocardiography (TEE) has better sensitivity for lymphomatous involvement (97% vs 75.9%) in patients with PCL (16)" does not explain the subject to compare the TEE sensitivity with. The authors have extensively covered the literature on the subject. The authors illustrated the case well.

**** Dear Reviewer, Thank you for your review and comments.**

- 1- We have changed the title to : "Cardiac Involvement In Disseminated Diffuse Large B-cell Lymphoma, Successful Management with Chemotherapy Dose Reduction Guided by Cardiac Imaging. *A Case Report and Literature Review*".
- 2- We agree with the reviewer that the case of Shah et al was not complicated by rupture we removed the reference from the paragraph. We have referenced the case of Shah et al. here because the authors mentioned their concern of the risk of rupture when they managed the case.
- 3- We have clarified the subject TEE sensitivity is compared with.
- 4- We have also added a paragraph at the end to elaborate on organ perforation in lymphoma.