Reviewer's report

Title: Treatment outcomes in deep sternal wound infection after cardiac surgery; Vacuum-assisted closure versus conventional treatment

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Reviewer: Neyyir Prof. Dr. Eren

Reviewer's report:

REVIEW of THE MANUSCRIPT NAMED “TREATMENT OUTCOMES IN DEEP STERNAL WOUND INFECTION AFTER CARDIAC SURGERY; VACUUM-ASSISTED CLOSURE VERSUS CONVENTIONAL TREATMENT” WRITTEN by DENIZ H. and HIS COWORKERS

Wound complications are very important problems after sternal incisions. Mediastinitis is one of the most feared consequences of those. Because of the importance of this subject this study is valuable. The cases were collected from among more than 9000 sternotomies which were performed in a period of 11 years. The number of patients was large enough.

Together with my special thanks to the authors for this longlasting and effortive study, I need to be replied for the following subjects rised during reviewing of this article.

1. The data which was used in this study was collected from their database and the initial patients were from the year of 2000. Approval date by the Ethics Committee is 22.11.2011. Thus I understood that this was a retrospective study. Therefore, these patients were treated without having any worries about following the protocols. In this situation were there any specific criteria for deciding which treatment would be applied?

2. The clinical criteria for the definition of deep sternal infection were not clear. It should be redescribed.

3. In the VAC group were there any patients in whom the authors considered the therapy as a failure and performed open surgery? Or vice versa? Especially since it was a retrospective study, alternative treatment modalities might have been performed in order to save life. If such cases were present were they still enrolled?

4. From the follow-up graphics the patients in the conventional treatment group were followed up significantly longer than those in the VAC group. Probably as a newer modality VAC treatment was accepted as a routine method lately. If there is another reason it should be explained.

5. During the explanation of the mortality, it was written that like all the patients died on their 45th postoperative day. Was this a coincidence or a mistake?
6. Was any endocarditis detected in the patients who had valvular prosthesis in both groups during treatment of mediastinitis?

7. The language would need to be revised with the help of a native English-speaking author to correct multiple grammar and syntax errors. After having their answers and corrections this manuscript will be acceptable.

With my regards.

Neyyir Tuncay Eren M.D.
Professor of Cardiovascular Surgery

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.