Reviewer’s report

Title: Complex pleural empyema can be safely treated with Vacuum-Assisted Closure

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Reviewer: Clemens PD Dr.med. Aigner

Reviewer’s report:

The authors describe a case series of patients with an interesting innovative treatment of pleural empyema by combining open window thoracostomy with the use of intrapleural VAC. This is a very clear and article describing all relevant aspects of the patients and the discussion gives a balanced view of the available literature in the field. However, there are some issues the need to be addressed:

Major points:
- The authors state that open window thoracostomy is often necessary to prevent sepsis in postoperative pleural empyema and favour an early OWT in case of postoperative pleural empyema. This results in an incidence of 1,5% of patients who receive OWT. It should be mentioned whether there has been a specific accumulation during this period or this is the average rate in the past.
- In order to assess the actual benefit of combining both treatment forms a comparison with the previously achieved results with OWT alone would be beneficial.
- The use of VAC alone (by just leaving the thoracotomy open with some VAC foam in between) without actually performing a formal OWT would probably lead to decreased discomfort for the patient and allow for an easier re-closure of the chest. Do the authors have experience with this treatment form?

Minor points:
- Was any local or general anaesthesia used for the changing of the VAC dressings?
- Chapter 2.2 "Restpneumonectomy" should be changed to "completion pneumonectomy"

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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