Reviewer’s report

Title: Sternal reconstruction after poststernotomy mediastinitis

Version: 0 Date: 04 Aug 2017

Reviewer: Oliver Reuthebuch

Reviewer's report:

Kaul has submitted a review article regarding therapeutic options in patients with sternal complications/infections after cardiac surgery.

The manuscript focuses on plastic surgery procedures to overcome this devastating complication.

Unfortunately the author only enumerates and briefly summarizes the existing literature, but the synopsis is missing. It is most important for the reader, to learn what one has to do in certain situations: is a latissimus dorsi flap, a pectoralis major flap, an omental graft or the combination of the described options the adequate approach? Is always a plastic surgeon needed?

Furthermore:

I doubt the numbers and I would disagree to say DSI is an uncommon complication. The STS guidelines (Ann Thorac Srg, 2006; 81:397-404) estimate a prevalence of 0.25-4% of DSI and not a mere 0.8 -1.5% as the author mentions. Maybe this is due to the fact, that addressed references are frequently outdated (here: 1984 and 1976). There is plenty of recent literature available.

- Prophylactic antibiotic administration is said to be administered before skin incision and skin closure. According to the STS guidelines (see above) antibiotics are said to be given up to 48h after surgery. Please specify.

- Please add to list of abbreviations: SSD; WBC, CRP, NPWT, VAC or have all abbreviations mentioned in the text.

- Please add titanium sternal plating method especially in conjunction with vacuum therapy for stabilizing sterna after infection. This technique is also potentially beneficial.

With these suggestions addressed in a revised manuscript, the article can be considered for publication.

Level of interest

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests
Quality of written English
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