Reviewer's report

Title: Subcutaneous emphysema of the leg after hardware removal and bone allografting for infected non-union of the distal femur

Version: 0 Date: 18 Apr 2017

Reviewer: Johannes Fakler

Reviewer's report:

The authors present an interesting case report dealing with a life-threatening soft tissue infection after hardware removal and bone allografting at the femur. The described interventions saved not only the patient’s lower extremity, but also his life.

However, several questions must be addressed in addition to minor and discretionay revisions:

Major revisions:

p3, line 42-44 and 56/57: ... teicoplanin 800 mg/die.... 800 mg/day, but more importantly: Administration per os? Bioavailability of teicoplanin per os is zero. Was it administered i.v.? If not, what was the rational of oral administration (i.e. additionally suspected pseudomembranous colitis?)

p 3, line 58/59: same with vancomycin, administration per os?

Why was a bone allograft used which has no osteoinductive properties? Did you consider autologous bone craft (i.e. liac crest?)

Non-unions (septic/aseptic) usually require stability to heal. Was an external fixator applied? If not, why? Malalignment might have been addressed with additional corrective osteotomy and external fixator? Or was correction of axis planned in second Intervention after consolidation?

Minor revisions:

I would avoid the term "leg emphysema". I think it is more accurate to describe it as subcutaneous emphysema of the leg or gas gangrene

p3, line 5/6: ..fixation of the fracture (the patient associated) with irrigation...
p3, line 14/15 and 23/24, p4, line 7: Range of motion was 0-40°. What does it mean? Total range of Motion? I advise a more precise description: i.e. extension/flexion 0/0/40°

p 3, line 18/19: ...adhesions (instead of adherences) ...

p3, line 54/55: use maximum instead of "massive" dosage

p3, line 56/57: ... i.v...., dosage /day

p4, line 9: rifampicin?

Discretionary revisions:

p2, line 2: Infected non-unions....

p2, line 7: ... originate...

p2, line 16: ... further orthopaedic ??? (interventions?)

p2, line 27: The patient saved the limb. (?) I guess, it was you who saved the leg. The patient’s limb was saved. Apart from that, I think this sentence may be better in the case Report section.

p3, line 9 and line 21/22: Weight bearing...

p3, line 42/43: ...osteomyelitis...

p5, line 12/13: life-threatening

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.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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