Reviewer's report

Title: TNK for ST-elevation myocardial infarction in a patient treated with Drotrecogin Alfa Activated (DrotAA) for severe sepsis: A Case Report

Version: 2 Date: 14 November 2008

Reviewer: dellamonica jean

Which of the following best describes what type of case report this is?: New associations or variations in disease processes

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

General comments:
The authors present the case of a man with septic shock due to pneumococcal pneumonia complicated with a myocardial infarction. They describe a thrombolysis during DrotAA treatment.

Two concerns are raised by this case:
1 Elements allowing the discrimination of septic shock and cardiogenic shock are missing. Myocardial infarction began at least 4 hours before (high troponin level) the diagnosis. Bad evolution of the initial pneumonia could have been due to the myocardial infarction and not to septic shock.
2 the treatment of MI is unclear: how long was the heparin infusion, did the
patient received antiagregant therapy.

Abstract:
introduction: the effect of DrotAA on mortality should be qualified.
Conclusion: I don’t understand the first sentence please specify. The conclusion should be more general pointing the difficulties of differentiation of pneumonia, sepsis and myocardial infarction.

Case presentation:
Please use acronyms only if used several times (MVC…, what is CCU?)
Please use generic names for accupril and Lipitor
Please specify the APACHE II score of the patient and give all elements that led to the conclusion of septic shock instead of cardiogenic shock. C reactive protein, procalcitonin, fever, cardiac function at the onset, SvO2, lactate, echocardogram, blood gases, ECG...
We need more elements to insure the intial disease is the septic shock and not myocardial infarction with cardiac insufficiency.
Could you give the germ sensibility to azithromicyn?

Discussion
Etiology of the sepsis (Streptococcus pneumoniae) should be discussed because of the association with myocardial infarction and takotsubo cardiomyopathy described. [Crit Care Resusc. 2008 Sep;10(3):231-4. Takotsubo cardiomyopathy associated with sepsis due to Streptococcus pneumoniae pneumonia. Geng S, Mullany D, Fraser JF.]
The MI treatment choosen should be discussed: aspirin, angiography and intravascular treatment...
The reason why the patient had myocardial infarction during anticoagulant (DrotAA) infusion could be discussed. Pre-existing thrombosis?
Some myocardial infarctions have been described with vasopressin. Holmes CL, Walley KR, Chittock DR, Lehman T, Russell JA. The effects of vasopressin on hemodynamics and renal function in severe septic shock: a case series. Intensive Care Med 2001;27:1416-21. This should be discussed.

References
13 and 14 are same articles

Quality of written English: Acceptable

Declaration of competing interests:
'I declare that I have no competing interests'