

Review of: "Fluids, Vasopressors and Inotropes to Restore Heart-Vessels Coupling in Sepsis: Treatment Options and Perspectives"

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Potential competing interests: No potential competing interests to declare.

This manuscript deals with an important topic of internal medicine and intensive care which concerns appropriate anamnesis, physical exam and appropriate treatment.

The title should be changed into "Diagnostic and treatment of sepsis: practical examples"

1. As always anamnesis is crucial. Anamnesis should include the list of drugs administered regularly before admission to the emergency room

2. Physical examination should include hydration and nutrition status

3. Laboratory investigation should include total proteins and albumin serum levels. Nowadays D-Dimers are almost routine. If echography apparatus is available, demonstration of urine content in the urinary bladder could help to check the hydration status.

4. Introduction: I suggest to remove figure 1 and replace it with a table with the most common symptoms of sepsis

5. "Sepsis is caused by invasion of the systemic circulation by bacteria which may reach different organs, multiply there (and not viruses!) causing recruitment of granulocytes, high fever and eventually hypotension by dehydration. The reaction of peripheral tissue hypoxia causes local inflammation and release of acute-phase mediators like IL-6 (the main acute-phase mediator!), which mount the defence reaction of the body. This is not an abnormal activation but a vital defense mechanism.

The pathogens in the blood are the cause of the alteration of the body homeostasis.

The recruitment of the granulocytes (not cellular lines) is the most important reaction.

4. First case: dehydration induced hypotension and creatinin increase. Which drugs were taken by the patient at home and which drugs were given in the emergency room and thereafter?

The most effective measure was fluid replacement and catheter withdrawal. The fluid replacement was efficacious but not sufficient to reestablish normal blood pressure.

Possibly albumin infusion would have helped.

Case 2 is quite similar....

The rest of the therapy and the discussion on that therapy may be not necessary as

improvement of creatinine serum level and of blood pressure may be achieved by increasing of the blood volume. The measurement of the blood volume should also be discussed.