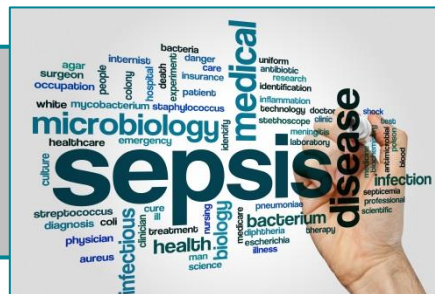


Innovative method for predicting the risk of sepsis

sepsis / septicemia / endotoxemia / cholesterolemia / interleukin 8 / procalcitonin / preoperative / postoperative follow-up / prevention



CONTEXT

Sepsis is one of the complications that can occur after cardiac surgery with extracorporeal circulation. This generalized inflammatory immune response is associated to a very poor clinical prognosis with a mortality rate of about 30%, hence the challenge of early detection. However, there are currently no consensual biological tests for the early screening of patients at risk of sepsis after cardiac surgery.

DESCRIPTION

The present invention relates to a method for predicting the risk of sepsis for a patient undergoing surgery, comprising the step of measuring preoperative cholesterolemia of said patient, wherein low preoperative cholesterolemia is associated with an increased risk of sepsis.

It also allows to more precisely predict the postoperative risk by measuring blood levels of interleukin 8 (IL-8) and/or procalcitonin (PCT) in the patient, wherein an increase in IL-8 and/or PCT levels within 6 hours after the surgical operation is associated with sepsis onset.

COMPETITIVE ADVANTAGES

- An excellent prediction score combining several pre- and postoperative biomarkers
- Early prediction: preoperative phase
- Complementarity with postoperative methods based on PCT or IL-8



Markets & applications

Health - prevention/diagnosis:

- ❖ pre- and postoperative follow-up on the risks of developing sepsis



Development stage

Prospective observational study in 217 patients who underwent cardiac surgery with extracorporeal circulation: demonstrating that preoperative low cholesterol levels are associated with an increased risk of sepsis (publication: Lagrost, *Crit Care Med* 2014)



Research team

Laboratory Lipids, Nutrition, Cancer
University of Burgundy - INSERM



Intellectual property

European patent issued in France, UK and Germany (filed on October 18, 2013)



Target partnership

Patent licensing

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