Role of circuit clotting and strategies to prevent it during blood purification therapy with oxiris membrane: an observational multicenter study.

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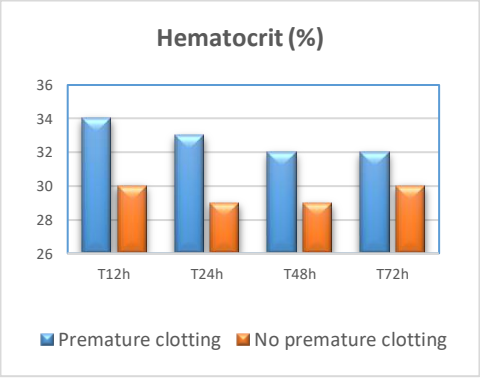
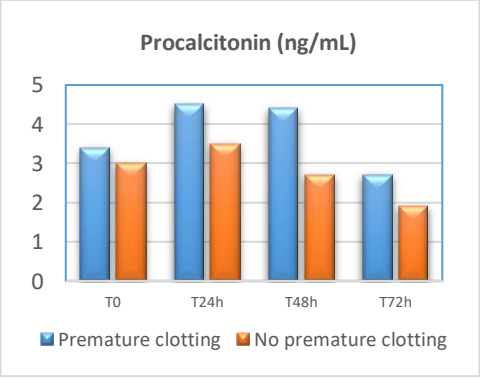
Objective: To describe the incidence, associated factors and clinical consequences of premature circuit clotting in adults critically ill septic patients treated with an extracorporeal blood purification (EBP) using a high biocompatible heparin-coated hemodiafilter.

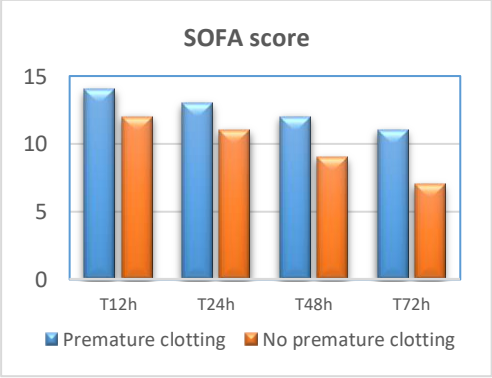
Methods: A prospective, observationalk multicentric study conducted on 97s septic patients undergoing EBP with an oXiris membrane, enrolled into the oXirisNET registry. The patients were divided in two groups, based on the occurrence of premature clotting (T=72h). A logistic regression analysis was used to identify factors associated with premature clotting.

Results: Premature clotting occurred in 18 (18,6%) patients. The hematocrit (%) (p=0.02, OR 1.15 [1.05;1.30]), the serum procalcitonin (p=0.03, OR 1.1 [1.05, 1.2]) and the anticoagulation strategy (p=0.05 at Wald's test) were independent predictors of circuit clotting.
Patients with non-premature circuit clotting showed more rapid recovery from hemodynamic instability, hypoxia and electrolyte disorders, with greater improvement of SOFASscore.



Conclusions: Premature circuit clotting is relatively frequent among adult critically ill septic patients treated with an EBP using an oXiris membrane, and seems to cause clinically relevant interferences with treatment performances.





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