

Systemic vascular cell adhesion molecule-1 predicts the occurrence of post-operative atrial fibrillation

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Background: Post-operative atrial fibrillation occurs in 30% of patients after on-pump heart surgery and is associated to elevated inflammatory markers. We have evaluated if the systemic biomarkers of inflammation and endothelial damage, vascular cell adhesion molecule-1 (VCAM-1) and soluble thrombomodulin may help in identifying patients prone to development of post-operative atrial fibrillation. **Methods:** One hundred and forty-four patients in sinus rhythm submitted to elective coronary artery bypass surgery. Systemic inflammatory, oxidative stress and endothelial damage markers were measured at baseline and 72 h after surgery. During the procedure, a sample of the right atrial appendage was obtained for histochemistry. Electrocardiogram was monitored for 72 h after surgery for event adjudication. **Results:** 22% of the patients developed post-operative atrial fibrillation. Baseline systemic inflammatory markers did not differ between patients with or without

post-operative atrial fibril