


Original Paper

Relevance of Endothelial Cell-Specific Molecule 1 (Endocan) Plasma Levels for Predicting Pulmonary Infection after Cardiac Surgery in Chronic Kidney Disease Patients: The Endolung Pilot Study

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Objectives: This pilot study aimed to evaluate the relevance of endocan plasma levels for predicting pulmonary infection after cardiac surgery in patients with chronic kidney disease (CKD). **Methods:** Serum collected in a previous prospective cohort study (from 166 patients with preoperative CKD who underwent cardiac surgery) was used. Five patients with postoperative pulmonary infection were compared with 15 randomly selected CKD patients with an uneventful outcome. Blood samples were tested at 4 time points (preoperatively and 6, 12, and 24 h after the end of surgery). Endocan, procalcitonin, and C-reactive protein plasma levels were compared between the two groups. **Results:** At 6 h, the patients with pulmonary infection had significantly higher levels of endocan than the patients without pulmonary infection (24.2 ± 15.6 vs. 6.4 ± 3.2 ng/mL; $p = 0.03$). A receiver operating characteristic curve analysis showed 80% sensitivity and 100% specificity for endocan to predict pulmonary infection (area under the curve 0.84), with a cutoff value of 15.9 ng/mL. The time saved by assessment of the endocan dosage compared to a clinical diagnosis of pulmonary infection was 47 h. **Conclusion:** This pilot study showed that a specific study to assess the link between endocan plasma levels and pulmonary infection after cardiac surgery in CKD patients is of potential utility.

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Relevance of Endothelial Cell-Specific Molecule 1 (Endocan) Plasma Levels for Predicting Pulmonary Infection after Cardiac Surgery in Chronic Kidney Disease Patients: The Endolung Pilot StudyAndréa Perrotti^a Camille Chenevier-Gobeaux^c Fiona Ecarnot^b
Benoît Barrucand^a Philippe Lassalle^d Enrica Dorigo^a Sidney Chocron^aDepartments of ^aThoracic and Cardiovascular Surgery and ^bCardiology, EA3920, University Hospital Jean Minjoz, Besançon, ^cDepartment of Automated Biological Diagnosis, Hôpitaux Universitaires Paris Centre (HUPC), Assistance Publique des Hôpitaux de Paris (AP-HP), Paris, and ^dInstitut Pasteur de Lille, Center for Infection and Immunity of Lille, Lille, France**Keywords**

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