Int Angiol. 2011 Jun;30(3):242-6.

Cardiac risk stratification in elective non-cardiac surgery: role of NT-proBNP.

Novo G, Corrado E, Tortorici E, Novo A, Agrusa A, Saladino V, Marturana I, Lentini R, Ferrandes M, Visconti C, Massenti F, D'Arienzo M, Vitale F, Gulotta G, Novo S.

Division of Cardiology, P. Giaccone University Hospital, University of Palermo, Palermo, Italy. novosav@unipa.it

Abstract

AIM:

The aim of the study was to investigate the utility of NT-proBNP measurement for the stratification of presurgical cardiac risk.

METHODS:

Cardiac risk before elective non-cardiac surgery was evaluated in 82 consecutive patients. From each patient a venous blood sample was drawn to determinate NT-proBNP levels. Patients were followed up over three months in order to detect the occurrence of cardiac adverse events.

RESULTS:

NT-proBNP was positively correlated (P<0.0001) with age, days of hospitalization (P=0.001) and ASA class (P=0.001). High surgical risk (P<0.0001), diabetes (P=0.004), dyslipidemia (P=0.006) and elevated levels of NT-proBNP (P<0.0001) were significantly correlated with events. Using a logistic regression analysis we found an independent association between pre-operative elevated NT-proBNP and postoperative cardiac events (OR 1.2, 95% CI 1.0-1.4, P=0.01).

CONCLUSION:

Measuring NT-proBNP before non cardiac surgery in clinical practice could be useful to better stratify patients' risk.