

Impact of renal dysfunction in patients with acute myocardial infarction on early management and outcome : a first observational French study



V. Bernard¹, L. Fraticelli², C. El Khoury², C. Claustre², Groupe RESUVal²

Background & Purpose

With rising life expectancy kidney dysfunction (KD) is a global public health problem and is largely associated to cardiovascular mortality.

Purpose: Analyse early management and outcome in real life of STEMI patients with KD compared to STEMI patients with normal renal function.

Methods

Using 10 years' data from OSCAR regional registry, we investigated the early management and outcome of all patients with STEMI. KD has been defined by creatinine clearance (CrCl) <90mL/min and was assessed using Cockcroft-Gault (CG) equation.

Two groups :

- 1) patients with normal kidney function (NKF) (CrCl ≥90mL/min)
- 2) patients with KD (CrCl <90mL/min)
 - mild KD (CrCl 60-90mL/min)
 - moderate KD (CrCl 30-60mL/min)
 - severe KD (CrCl <30mL/min).

Conclusions

KD was associated with poor short- and long-term prognosis after myocardial infarction, and mortality increased with KD severity. Despite a high cardiovascular risk, they are less likely to receive therapy while having more extended infarction.

To achieve an optimal management of KD patients with STEMI, we should introduce evidence-based therapies in the acute phase.

Results

8 003 STEMI included from 2009 to 2018, 4 234 (52.9%) of them with KD : 2441 (57.6%) mild KD, 1494 (35.3%) moderate KD and 299 (7.1%) severe KD.

NKF patients were younger than KD group (54 [48-61] vs 72 [63-81]).

Baseline characteristics of KD group (p<0,001) :

- More cardiovascular risk factors
- Less smokers
- Less often chest pain
- More dyspnea or cardiac arrest
- More than 14% with Killip≥2
- More anterior and lateral location of infarction

In-hospital therapeutic strategy :

KD patients received less prasugrel (11% vs 20%), ticagrelor (44% vs 49%), enoxaparin (70% vs 80%), morphine (29% vs 39%) or other analgesic (30% vs 35%), but more clopidogrel (33% vs 23%), diuretics (3% vs 0,7%) and catecholamines (5% vs 2%) (p<0.001).

Outcome :

