Objective We aimed to analyze the clinical characteristics of patients presenting with clinical markers of spontaneous reperfusion (SR) during acute myocardial infarction, and to evaluate its effect on hospital prognosis.
Methods We retrospectively reviewed data for 1785 patients admitted for STEMI. The patients were divided into SR group (spontaneous relief of chest pain less than 5 on a scale from 0 to 10, and ST segment elevation resolution of more than 50% from baseline) and non-SR group (the remaining population). The clinical and prognostic features of the patients were analyzed.
Results The incidence of SR in our population was 10.4% of patients ($N = 187$). SR patients were younger (57.6 vs. 61.1 years; $P = 0.002$) and had a higher prevalence of current smoking (77.9% vs. 65.9%; $P = 0.003$) and less myocardial damage as indicated by lower peak creatine kinase (1158 vs. 2022 UI/l; $P < 0.001$).
In hospital mortality (3.2% vs. 10%; $P = 0.013$), heart failure (8.4% vs. 19.7%; $P = 0.001$), atrial fibrillation (0.6% vs. 7.3%; $P = 0.002$) and acute pericarditis (0% vs. 4%; $P = 0.011$) were significantly lower for SR patients.
Multivariate analysis found smoking as the only predictor factor of SR (OR = 1.82, 95% CI [1.2—2.7]; $P = 0.003$).
Conclusion Our data shows that SR decreased infarction size, improved heart function and reduced mortality. The subgroup of STEMI with SR carries a more favorable prognosis.
Disclosure of interest The authors declare that they have no competing interest.

https://doi.org/10.1016/j.acvdsp.2019.01.008

JE19-523

In-hospital mortality from ST-segment elevation myocardial infarction (STEMI): Evolution and predictors according to the MIRAMI registry

A. Najjar*, M. Ben Messaoud, A. Belfekih, M. Mahjoub, M. Hassine, H. Gamra
Cardiologie A, CHU Fattouma Bourguiba, Monastir, Tunisie
* *Corresponding author.*
E-mail address: najjar_aymanus@yahoo.fr (A. Najjar)

Background STEMI is the leading cause of death in the world. Thanks to urgent reperfusion endeavours, a significant reduction in the in-hospital mortality has been reported worldwide.
Purpose To describe the evolution of the in-hospital mortality post STEMI between 1995 and 2015 and to identify the predictors of this mortality.
Methods This is a retrospective, mono-centric, descriptive and analytical study from the MIRAMI (MonastIR Acute Myocardial Infarction) registry including 1686 patients admitted for STEMI in the cardiology department of the ''Fattouma Bourguiba'' University Hospital in Monastir-Tunisia between January 1995 and December 2015.
Results The mean age was 60.48 ± 12.64 years; 80.8% were male. The main cardio-vascular risk factors were smoking (66.5%), diabetes (37.8%), and hypertension (31.3%). In-hospital mortality was 9.6% (162 patients), but statistically insignificant fluctuations over the years were reported ($P = 0.133$). The two leading causes of death were cardiogenic shock (43.20%) and ventricular arrhythmia (20.37%). A higher in-hospital mortality was associated with female (< 0,001),elderly patients (< 0,001),and first medical contact (FMC) > 6 h ($P = 0.002$). Urgent reperfusion was achieved in 58.7% of cases with a general trend towards primary angioplasty ($P < 0.001$). Nevertheless, it was associated with higher mortality ($P = 0.005$). In univariate analysis, angioplasty with balloon and TIMI 0/1 flow post angioplasty were predictors of in-hospital mortality ($P < 0.001$). Four independent predictors of in-hospital mortality were reported: Mechanical ventilation (OR = 36.65, 95% CI = 17.28—77.75,$P < 0.001$), the use of inotropes/vasopressors (OR = 7.25, 95% CI = 3.75—14.01,$P < 0.001$), anaemia (Hb <12 g/dl) (OR = 2.13; 95% CI = 1.13—4.02,$P = 0.02$) and FMC > 3 h (OR = 1.07, 95% CI = 1.02—1.13, $P = 0.002$).
Conclusion Despite improvement in the management of STEMI, in-hospital mortality has remained relatively stable. However, in the last years this mortality has experienced a significant decline.
Disclosure of interest The authors declare that they have no competing interest.

https://doi.org/10.1016/j.acvdsp.2019.01.009

JE19-527

Chronic total occlusion percutaneous coronary intervention: Short and medium term results

M. Ben Messaoud*, A. Belfekih, W. Abdallah, M. Mahjoub, M. Hassine, Mejdi. Ben Messaoud, Z. Dridi, F. Betbout, H. Gamra
Cardiologie A, CHU Fattouma-Bourguiba, Monastir, Tunisie
* *Corresponding author.*
E-mail address: belfekih.ayoub@gmail.com (M. Ben Messaoud)

Introduction Coronary chronic total occlusion (CTO) angioplasties are considered the most complex of angioplasties requiring experienced operators as well as many specific materials and techniques.
Purpose This study aims to identify the predictors of success or failure of CTO angioplasty and to evaluate the short- and medium-term results of this procedure.
Material and methods This study is a single-centric retrospective comparative study including patients who underwent CTO angioplasty in the cardiology ''A'' department at Fattouma-Bourguiba Hospital during the period between January and 2008 and December 2015.
Results Our study included 200 patients with attempt of CTO angioplasty. The mean age was 63 ± 8.63 years and the mean number of cardio-vascular risk factors was 2.67. Acute coronary syndrome was the main indication (57.5%) for coronarography. A multi-truncal coronary status was reported in 53.5% of the cases. The mean J-CTO score was 1.42 ± 1.3 and 44% of lesions were estimated difficult to very difficult. The anterograde approach has been the most used technique. The angiographic success of ATL has been reported in 106 patients (53%). DES were implanted in 69.9% of cases. The leading cause of angioplasty failure was the impossibility to cross the lesion by the wire. The procedural complications occurred in 11.5% of cases. The independent predictors of ATL failure were: dyslipidaemia, a bending > 45 degrees ($P < 0.001$), a diameter of the occluded vessel < 3 mm ($P < 0.001$) and JCTO score ≥ 2 ($P < 0.001$). Short- and medium-term clinical follow-up showed that the success of ATL, compared to failure, decreased significantly the rate of angina recurrence ($P < 0.001$), re-hospitalization ($P = 0.012$) and major adverse cardio-vascular events ''MACE'' ($P = 0.006$), but without significant impact on mortality.
Conclusion The results of our study showed a clinical benefit of CTO angioplasty in case of success and demonstrated once more many failure predicting angiographic factors.
Disclosure of interest The authors declare that they have no competing interest.

https://doi.org/10.1016/j.acvdsp.2019.01.010