

[Print this Page for Your Records](#)[Close Window](#)**Control/Tracking Number:** A-07-2120-EASD**Activity:** Abstract**Current Date/Time:** 3/31/2007 8:15:57 AM**Impact of chronic metformin and sulfonylureas treatment in diabetic patients developing an acute myocardial infarction****Author Block:** M. ZELLER¹, N. DANCHIN², J.-M. PERNES³, P. STEG⁴, D. CARRIE⁵, P. QUANDALLE⁶, G. AMAT⁷, E. DURAND², J.-P. CAMBOU⁸, G. MULAK⁹, T. SIMON¹⁰;¹Cardiology, CHU Dijon, Dijon, France, ²Cardiology, HEGP, Paris, France, ³Cardiology, Hôpital privé Antony, Antony, France, ⁴Cardiology, CHU Bichat, Paris, France, ⁵Cardiology, CHU Toulouse, Toulouse, France, ⁶Cardiology, CH Roubaix, Roubaix, France, ⁷Cardiology, CH Vichy, Vichy, France, ⁸Recherche, Société Française de Cardiologie, Paris, France, ⁹Recherche, Société Française de Cardologie, Paris, France, ¹⁰Pharmacology, CHU St Antoine, Paris, France.*Abstract:***Background and Aims:**

Little information is available on the impact of chronic oral antidiabetic medications on outcomes in patients developing an acute myocardial infarction. Aim: To assess early and 6-month mortality according to the prior use of metformin and sulfonylureas in diabetic patients admitted for AMI in a nationwide French registry.

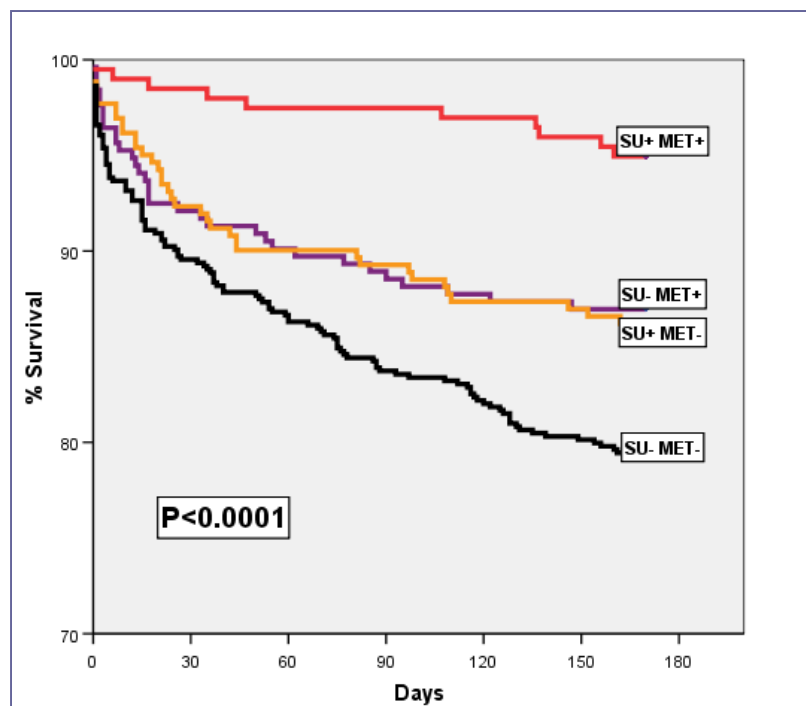
Materials and Methods: The FAST-MI registry included consecutive patients admitted for ST-elevation or non-ST elevation myocardial infarction ≤ 48 hours of symptom onset, in 223 French intensive care units over 2 months from October 2005. In-hospital and 6-month outcome was compared for all 1,316 diabetics. In diabetic patients, 4 groups were defined according to their antidiabetic treatment before admission: no SU and no metformin (S- M-, n=594), SU alone (S+, n=264), metformin alone (M+, n=257), and combination of SU and metformin (S+M+, n=201).

Results:

Age was 71 ± 12 for M-S-, 68 ± 10 for M+, 71 ± 11 for S+ and 67 ± 11 years for S+M+ ($p < 0.001$). GRACE risk score was higher in S-M- (173 ± 39) and S+ (168 ± 38), compared with M+ (163 ± 36) and M+S+ (162 ± 36) ($p = 0.001$). HbA1c (available in half of the patients) was higher in M+S+ ($8.0 \pm 1.6\%$) compared with S-M- (7.5 ± 1.6), S+ (7.3 ± 1.4) or M+ (7.4 ± 1.4) ($p < 0.005$) and entry glycaemia was also higher (2.39 ± 1.18 g/L) vs S+ (2.10 ± 0.98), M+ (1.90 ± 0.67) or S-M- (2.07 ± 1.18) ($p < 0.001$).

Five-day mortality was 6.1% (M-S-), 3.5% (M+), 2.3% (S+) and 0.5% (M+S+) ($p < 0.001$). Six-month survival was 80%, 86%, 87% and 95%, respectively ($p < 0.001$) (Figure). Using Cox multivariate analysis, the odds ratio for 6-month mortality compared to the M-S- group were: 0.84 (95%CI: 0.56-1.25, $p = \text{NS}$) for M+, 0.65 (95%CI: 0.43-0.97, $p < 0.05$) for S+ and 0.27 (95%CI: 0.13-0.54, $p < 0.001$) for M+S+.

Conclusion: In this real world registry, the combined use of sulfonylureas and metformin was associated with improved early and 6-month survival after acute myocardial infarction. Similar outcomes were observed for patients on metformin or sulfonylureas alone, but using multivariate adjustments, only sulfonylureas alone was significantly associated with improved survival.



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