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Abstract 283: Temporal Trends in Treatment of ST-Elevation Myocardial Infarction Among Men and Women in Switzerland from 1997 through 2010

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Introduction: Few data describe temporal trends in presentation, treatment and outcome in men and women with acute ST-segment elevation myocardial infarction (STEMI).

Methods: Swiss STEMI patients enrolled in the AMIS Plus registry from 1997–2010 were analyzed using multivariate logistic regression.

Results: From 20,363 STEMI patients, 5458 were women and 14,905 men. Women were 8.6 years older, had more co-morbidities (Charlson Index ≥ 2 16.9% vs 12.8%; $P < 0.001$), diabetes mellitus (22.6% vs 17.3%; $P < 0.001$) and hypertension (64.9% vs 50.6%; $P < 0.001$) and atrial fibrillation (5.6% vs 3.9%; $P < 0.001$). Men had more often dyslipidemia (54.1% vs 50.3%; $P < 0.001$), resuscitation prior admission (6.3% vs 5.2%; $P = 0.003$) and were more often current smokers (46.3% vs 29.9%; $P < 0.001$). Women were less likely to undergo primary reperfusion (61.6% vs 75.4%; OR 0.52; 95%CI 0.49–0.58; $P < 0.001$) even after adjusting for baseline characteristics and admission year (OR 0.80; 95%CI 0.71–0.89; $P < 0.001$), or to receive early and discharge drugs such as thienopyridines, ACE inhibitors, AT antagonists or statins. In 1997, thrombolysis was performed in 51% of male and 39% of female patients. Now, thrombolysis is negligible. Use of primary PCI increased from below 10% in both genders in 1997 to over 70% in females and over 80% in males. Early thienopyridine therapy steadily increased to 90% of all patients in 2010. Statin use rapidly increased until 2002, peaking at 72% in women and 82% in men in 2005/6. Early statin use since decreased but thienopyridine and statin therapies at discharge increased and were prescribed to over 90% of patients in 2010. From 1997–2010, annual in-hospital mortality decreased by 5% in men (OR 0.95; 95%CI 0.94–0.97; $P < 0.001$) and 6% in women (OR 0.94; 95%CI 0.92–0.96; $P < 0.001$). Despite higher crude in-hospital mortality, female gender was not an independent predictor of in-hospital mortality (OR 1.10; 95%CI 0.90–1.35; $P = 0.37$).

Conclusion: Therapy of STEMI patients has changed greatly during the past 14 years in Switzerland, largely in accordance with guideline recommendations.