Abstract: P160

Patients with congestive heart failure and acute myocardial infarction

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Background: Prognosis of patients with acute myocardial infarction (MI) and with known congestive heart failure (CHF) is worse compared to patients with MI only. Treatment of MI patients has changed tremendously over the last years. Whether the change in treatment has had any influence on prognosis of patients with MI and CHF was analyzed in our study.

Method: Our Registry collects prospective data on hospital treatment of patients with MI since 1999. In this study we included 30.289 MI patients, treated in 22 hospitals between 2008-2017. We compared MI patients with and without known CHF. We analyzed differences in age, between sexes, in their ECG findings, in KILLIP classes on admission and in PCI frequency and hospital mortality over time (2008-09 n=5355, 2010-11 n=5950, 2012-13 n=5842, 2014-15 n=6169, 2016-17 n=6973).

Results: 4942 patients (16.3%) suffered from known CHF on admission. Patients with CHF differed significantly from those without known CHF in all variables studied. Patients without CHF were on average 65 years old, 29.8% were women, they suffered from STEMI in 48.2% and showed the following KILLIP classes: 85.1% class I, 10.3% class II/III, 4.6% class IV. Patients with CHF were on average 73 years old, 34.5% were women, they suffered from STEMI in 38.2% and showed the following KILLIP classes: 53.8% class I, 31.5% class II/III, 14.8% class IV. 83.5% of patients without CHF received a PCI vs. 67.2% of patients with CHF. Hospital mortality was 15.7% for patients with CHF and 4.1% for those without CHF. Treatment with PCI increased comparably more over time for patients with CHF. Over the same time period hospital mortality was reduced more for patients with CHF than for those without CHF. After adjustment for age, sex, KILLIP classes, STEMI and PCI in a logistic regression analysis for MI patients with CHF, chances of dying in the hospital (with odds for hospital death in 2008-2009 as reference) showed an OR= 0.89 (95% KI: 0.66-1.19) in 2010-11, an OR= 0.61 (95% KI:0.45-0.83) in 2012-13, an OR= 0.65 (95% KI: 0.49-0.86) in 2014-15 and an OR=0.58 (95% KI: 0.44-0.76) in 2016-17. The same regression analysis for MI patients without CHF showed also a reduction in mortality over time: but this reduction was - despite of bigger numbers - not statistically significant.

Conclusion: Patients with CHF have a higher hospital mortality compared to patients without CHF, they are older and more often women.

Patients with CHF are increasingly treated with PCI over time, but compared to MI patients without CHF treatment with PCI is applied less often.

After adjustment hospital mortality decreased significantly over time for patients with CHF.