

Routine invasive strategy for women with NSTEMI myocardial infarction? – Results of the Berliner Herzinfarktregister (BHIR)

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Background: The benefit of a routine invasive strategy for male and female STEMI patients and for male NSTEMI patients is known. It is under discussion whether female NSTEMI patients may also benefit from routine invasive procedures. Therefore we analysed our data concerning the effect of a routine invasive strategy in consecutive female patients with NSTEMI and STEMI.

Methods: The BHIR is an ongoing myocardial infarction registry which collects data on treatment and outcome of AMI patients. For this analysis we included data from 775 female AMI patients (STEMI $n=449$, NSTEMI $n=326$) who were treated between 1.1.2004 – 31.7.2006. The data were analyzed stratified for STEMI and NSTEMI. Differences between patients with a statistically significant influence on hospital mortality for both STEMI and NSTEMI were adjusted for age, renal failure, diabetes mellitus, CHF and cardiogenic shock on admission.

Results: NSTEMI (72.6 years) and STEMI patients (71.3 years) did not show a significant difference in age ($p=0.358$). Patients with NSTEMI showed more concomitant diseases, i.e. diabetes mellitus (NSTEMI: 38.7%; STEMI: 30.2% $p=0.015$), previous AMI (NSTEMI: 25.0%; STEMI: 14.9% $p=0.001$), atrial fibrillation (NSTEMI: 13.3%; STEMI: 7.8% $p=0.013$). NSTEMI patients reached a hospital only in 49.8% of cases with the physician escorted rescue system (compared to 62.0% for STEMI, $p=0.001$). NSTEMI received primary PCI (66.9%) less often than STEMI patients (75.9%) ($p=0.006$). There were no major differences in the initial therapy with ASA, beta-blockers, ace-inhibitors and cse-inhibitors. Hospital mortality was 5.7% for NSTEMI and 13.1% for STEMI patients ($p=0.001$). The influence of PCI on hospital mortality for STEMI patients was OR= 0.33 (95% CI: 0.15-0.73) after adjustment, the results for NSTEMI patients were not significant and showed an OR=0.86 (95% CI: 0.21-3.52).

Conclusion: The data of our clinical registry did not show a benefit of a routine invasive strategy for NSTEMI in comparison to STEMI female patients. These results should be validated in other studies and registries. Further research may be needed to determine an appropriate and optimal strategy for female NSTEMI patients.