PRIMARY PERCUTANEOUS CORONARY INTERVENTION IN A REAL LIFE POPULATION: COMPARISON WITH TRIAL FINDINGS

i2 Poster Contributions
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Background: Primary percutaneous coronary intervention (pPCI) is the recommended treatment of ST-Elevation Myocardial Infarction (STEMI). The efficacy of pPCI is documented in a number of randomised controlled trials, among these the Danish DANAMI-2 trial. However, translating RCT results into real life settings is a challenge as the external validity is often impaired.

Methods: We did a population-based follow-up study in the Central Denmark Region. We compared 1320 consecutive patients from West Danish Heart Registry treated with pPCI between April 2004 and December 2006 to the 686 patients treated with pPCI in the DANAMI-2 trial. By reviewing medical records we determined whether the real-life patients were eligible in the DANAMI-2 trial. The main outcome measure was the composite endpoint of all-cause mortality, reinfarction and stroke at 30 days, 1 and 2 years. We used Cox proportional hazards regression to compute crude and adjusted hazard ratios adjusting for differences in patient characteristics, duration of symptoms, type of stent and the use of cardiovascular drugs after one year.

Results: The real-life population had a more adverse baseline risk profile including older age, higher comorbidity, longer duration of symptoms and a higher prevalence of 3-vessel disease. The cumulative incidence of the composite endpoint after 1 and 2 years was 17.8 % and 22.0 % respectively in the real-life population compared with 13.6 % and 17.3 % in the DANAMI-2 population. After adjustment the differences persisted after 1 year (adjusted HR=1.8, 95% CI: 1.3-2.6), and 2 years (adjusted HR=1.7, 95% CI: 1.2-2.3). The results in the real-life patients eligible according to the DANAMI-2 criteria were comparable to the results in the DANAMI-2 trial.

Conclusion: Real-life patients had a more adverse baseline prognostic profile and a poorer clinical outcome compared with the DANAMI-2 patients. However, the prognosis in the real-life patients eligible according to the DANAMI-2 criteria was comparable to that for the DANAMI-2 patients.