

Acute Coronary Syndromes

Characteristics, management and prognosis in relation to gender and type of syndrome

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid
Sahlgrenska Akademin vid Göteborgs Universitet offentligen kommer att försvaras i
Aulan, Sahlgrenska Universitetssjukhuset
torsdagen den 14 december 2006, kl. 09.00

av

Elisabeth Perers

Leg. Läkare

Fakultetsopponent:

Professor Stefan Agewall

Aker Universitetssykehus

Oslo

Avhandlingen baseras på följande delarbeten:

E. Perers, K. Caidahl, J. Herlitz, M. Sjölin, B. W. Karlson, T. Karlsson, M. Hartford
Spectrum of acute coronary syndromes: History and clinical presentation in relation to
sex and age *Cardiology* 2004;102:67-76

E. Perers, K. Caidahl, J. Herlitz, B. W. Karlsson, T. Karlsson, M. Hartford
Treatment and short term outcome in women and men with acute coronary syndromes
Int J Cardiology 2005;103:120-127

E. Perers, M. From Attebring, K. Caidahl, J. Herlitz, T. Karlsson, P. Währborg, M. Hartford
Low risk is associated with poorer quality of life than high risk following acute coronary syndrome
Coronary Artery Disease 2006;17:501-510

E. Perers, K. Caidahl, J. Herlitz, T. Karlsson, M. Hartford
Impact of diagnosis and gender on long-term prognosis in acute coronary syndromes.
Submitted for publication in American Heart Journal



Acute Coronary Syndromes

Characteristics, management and prognosis in relation to gender and type of syndrome

Elisabeth Perers

Cardiovascular Institute, Göteborg University, Göteborg, Sweden

ABSTRACT

Background: Acute coronary syndromes (ACS) represent a wide spectrum of conditions from ST-elevation myocardial infarction (STEMI) to unstable angina pectoris (UAP). Randomized trials tend to focus on ST-elevation myocardial infarction (STEMI) or non-ST-elevation ACS, and consequently studies providing data on the entire condition are relatively scarce, especially with information including long-term follow-up.

Methods: We studied 1744 consecutive patients under 80 years of age admitted to the coronary care unit (CCU) at Sahlgrenska University Hospital with ACS between Sept 1995 and Sept 1999. The patients were divided into four groups with assumed decreasing order of severity on the basis of ECG and biochemical markers; STEMI, non STEMI and UAP of high-and low-risk types. Three different age groups were also created (<65, 65-74 and 75-79 years). All patients were followed for 5 years with regard to total mortality and for 45 months with respect to cardiovascular morbidity and mortality. The main objectives were to study differences in baseline characteristics, clinical presentation, treatment, early as well as long-term morbidity and mortality in relation to gender, type of syndrome and age.

Results: Women were older than men, less likely to seek early medical care, and in the younger age group more likely to present with hypotension. No significant differences in treatment were observed. Reperfusion was used to a similar extent in women and men, but there was a non significant tendency to use percutaneous coronary intervention (PCI) more often in men. Women did not suffer from more severe complications or early deaths. Among women and men surviving the acute phase there was no difference in long-term mortality (21.0% and 18.2%, respectively). After adjustment for age differences the hazard ratio (HR) and corresponding confidence interval (CI) for a higher late 5 year mortality in women in relation to men was 0.89 (0.70-1.13), $p=0.34$. The crude rate of rehospitalization for congestive heart failure was significantly higher in women, a significance that disappeared after adjustment for age. While short-term mortality was highest in STEMI, the non STEMI patients did worse in the long run. Non STEMI was associated with a significantly higher long-term mortality than STEMI, before but not after adjustment for co-variables (HR and 95% CI 1.02 [0.75-1.37], $p=0.92$). Of these, age, ST-depression on admission and early revascularization with PCI seemed to be of particular importance.

Elderly patients had a more complicated course of the disease, were less frequently subjected to coronary angiographies and PCI, and had a poorer outcome. Patients with UAP, especially of the low-risk type, experienced poorer quality of life following ACS than patients with other types of ACS.

Conclusion: Among patients <80 years with ACS admitted to a CCU, the suspicion that women are treated less aggressively and suffer from more complications including mortality than men could not be verified. Only small gender differences were observed. With respect to type of syndrome we could demonstrate a higher long-term mortality in non STEMI, which disappeared after adjustment for variables with a significant impact on prognosis.

Key words: Acute coronary syndromes, gender, age, treatment, quality of life, outcome

ISBN : 91-628-6964-7