Background

Myocardial revascularization is considered the mainstay in treatment of acute myocardial infarction. Despite increasing use, gender inequalities in receiving such treatment have been reported. No nationwide information on rates and trends of PCI and CABG have been previously available in Norway. The aim was to explore trends in rates of revascularization procedures after an AMI in Norway during 1994-2009, focusing on possible gender differences.

Methods

Study population: All AMI hospitalizations (ICD9 410; ICD10 I21, I22) during 1994-2009 in Norway for individuals 25-85 years in Norway were retrieved from the ‘Cardiovascular disease in Norway’ (CVDNOR) project.

Outcome: PCI within 28 days and CABG within 8 weeks from hospitalization date.

Age standardized rates of PCI and CABG and 95% CI were calculated using 10-year age strata and the population of hospitalized patients for an AMI in 2009 as the standard population.

Time trends in PCI and CABG rates were explored by Joinpoint regression analyses. Annual percentage change in rates for each time period (APC) and 95% CI are presented.

Age-adjusted gender differences in receiving PCI and CABG were analysed with Poison regression and results expressed as Incidence Rate Ratio (IRR).

Results

A total of 162,200 AMI patients (65% men) experienced 200,143 AMI hospitalizations (65.5% men). PCI was performed in 19% of men and 5.5% of women. CABG was performed in 11.8% of men and 3.3% of women.

Time trends in PCI and CABG age-standardized rates (Figure):

- **Men:** PCI rates increased with 113% per year during 1994-2000, 30% per year during 2000-2004 and 5% per year during 2004-2009.
- **Women:** PCI rates increased with 80% per year during 1994-2001, 20% per year until 2005 and stopped thereafter (2005-2009).
- **Men:** CABG rates increased with 24% a year during 1994-2002, 12% a year during 2002-2007.
- **Women:** CABG rates increased with 24% a year during 1994-2002, 4% during 2002-2009.

Gender differences in PCI and CABG rates:

- Women had 21% lower PCI rates and 37% lower CABG rates compared to men during the study period.

Conclusion

AMI patients (both men and women) experienced important increases in rates of revascularization procedures in Norway during 1994-2009. However, women were less likely to receive such procedures compared to men.

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