

Long-Term Incident Heart Failure After Acute Coronary Syndrome: A Population-Based Analysis

EPH154

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INTRODUCTION

Information on long-term incident heart failure (iHF) after acute coronary syndrome (ACS) is limited: it comes from old studies, which do not reflect the current reality of widespread primary angioplasty, or from the controlled setting of clinical trials, with follow-up periods that in no case exceed 5 years after the event.

OBJECTIVE

1. Describe the **baseline characteristics** of the ACS survivor population.
2. Determine the incidence of **long-term HF** in all patients discharged alive after ACS.
3. To describe the **main clinical events** in the overall population and according to HF development.

METHOD

Observational, retrospective, population-based study based on analysis of CatSalut health database that included **83,357 patients** admitted for ACS between 1st January **2012** and 31st December **2021**, excluding those with previous diagnosis of HF and those who died before discharge. **Primary outcome**: HF at 10 years. For both primary and secondary outcomes, time to first event was analysed in addition to total events, number (proportions) and incidence rates.

RESULTS

Mean age (SD) was 67 (13). 29% (n=23,814) were women. 23.3% developed iHF (incidence rate of 5.2 new cases per 100 person-years). Patients iHF(+) were **older** (75 ± 12 vs. 65 ± 13 ; $p<0.001$) and more **female** (38% vs. 27%; $p<0.001$) than those iHF(-). The frequency of **cardiovascular risk factors** and previously established cardiovascular disease was also higher in iHF(+) group while their income level was lower. Main risk factors for developing HF after ACS: older age (β sc per year = 0.037; $p<0.001$), Killip class II-III (β sc = 0.774; $p<0.001$) and **low/very low income level** (β sc = 0.737; $p<0.001$) (Figure). The frequency of all adverse events analysed was higher in iHF(+) group, especially all-cause mortality (cumulative incidence 48.8% vs. 13.5% and incidence rate 10.5 vs. 3.1 new cases per 100 person-years); also: recurrent coronary events, MACE-4P, atrial fibrillation/flutter, stroke and terminal events.

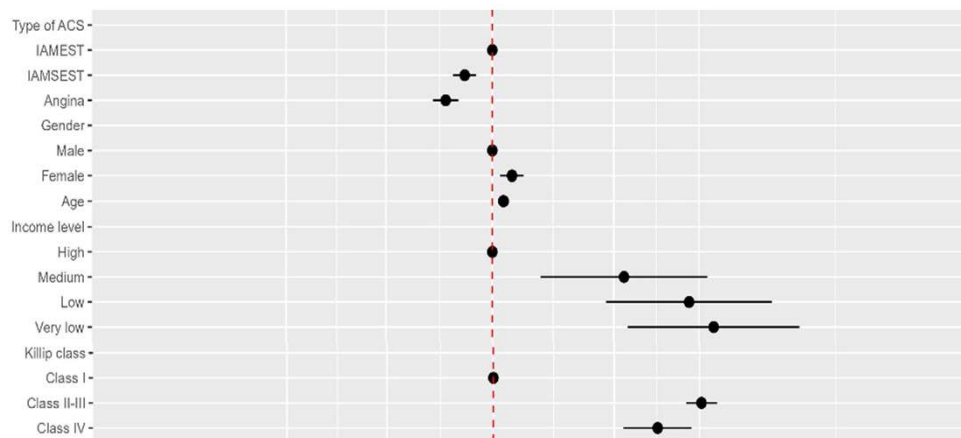


Figure: Forest plot of the multivariate Cox regression analysis evaluating the predictors of heart failure after acute coronary syndrome.
HR: Hazard ratio; NSTEMI: Non-ST-elevation myocardial infarction; STEMI: ST-elevation myocardial infarction.

CONCLUSIONS

In a contemporary population setting, about 1 in 4 patients developed HF within 10 years after ACS admission. Age, Killip class II-III and low income were the strongest predictors. The frequency of adverse events was higher in iHF(+), especially all-cause mortality.

REFERENCES

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