Current regional differences in the use of antithrombotic drugs for the treatment of acute coronary syndromes. Results from the EPICOR study

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Purpose

• Antithrombotic drugs play a crucial role in the management of acute coronary syndrome (ACS). Recent clinical trials have demonstrated the efficacy and safety profiles of new antithrombotic and antiplatelet agents, which may be used as add-on therapy or replacements for older drugs.

• There are now a substantial number of potential drug combinations for ACS, many of which have not been fully evaluated. Furthermore, their interaction with invasive versus non-invasive management must also be taken into consideration.

• The EPICOR (long-term follow-up of antithrombotic management patterns in acute CORonary syndrome patients) is a prospective international observational study (NCT01171404) designed to describe the current use of antithrombotic management strategies for the treatment of ACS during the acute phase and over a follow-up period of up to 2 years from the index event. Patients who did not survive the initial hospitalization for ACS were excluded from the analysis.

• In the present analysis, data from EPICOR were used to explore regional differences in the patterns of antithrombotic therapy (AT) during the acute phase in patients hospitalized for ACS.

Methods

• Patients who were hospitalized for ACS within 24 h of symptom onset and who had a final diagnosis of ST-segment elevation myocardial infarction (STEMI) or unstable angina or non-ST-segment elevation myocardial infarction (NSTE ACS) were eligible to be enrolled in EPICOR.

• A total of 10,568 patients were enrolled from 555 hospitals in 20 countries between September 2010 and March 2011 (prior to the availability of ticagrelor).

• Patterns of pre- and in-hospital (acute phase) AT were described for four pre-specified regions (Figure 1): – Northern Europe (Belgium, Denmark, Finland, Germany, Luxembourg, Netherlands, Norway, UK, n=3782) – Southern Europe (France, Greece, Italy, Spain, n=2337) – Eastern Europe (Poland, Romania, Slovenia, Turkey, n=2380) – Latin America (Argentina, Brazil, Mexico, Venezuela, n=2069).

• AT patterns were defined according to which drugs were administered during the acute phase either alone or in combination.

• The frequency of AT use is reported as the percentage of patients receiving a particular AT pattern.

• AT patterns used by ≥0.5% of the population are displayed.

• Chi-square tests were computed to assess the difference in the distribution of patients between AT pattern and diagnosis type (STEMI, NSTE-ACS) and between AT pattern and the four pre-specified regions within each diagnosis type.

Results

• The most frequent AT patterns used during the acute phase were aspirin+clopidogrel, triple AT (aspirin+clopidogrel+glycoprotein IIb/IIIa inhibitors or aspirin+prasugrel+glycoprotein IIb/IIIa inhibitors), prasugrel (aspirin, aspirin alone and clopidogrel alone (Table)).

• There were differences in AT patterns used for patients with STEMI as compared with NSTE ACS patients (p<0.001).

• There was more use of triple AT by STEMI patients compared with NSTE ACS patients.

• Differences in AT pattern use between regions were statistically significant for STEMI and NSTE ACS patients (p<0.001 for both comparisons).

Conclusions

• Important regional differences in the use of AT for the management of ACS were observed.

• Eastern European and Latin American countries showed less aggressive patterns of AT than Northern European and South Eastern countries.

• More research is needed to understand the reasons for the regional differences in the use of antithrombotic drugs and combinations for the treatment of ACS.

Declarations of interests

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Current regional differences in the use of antiplatelet drugs for the treatment of acute coronary syndromes. Results from the EPICOR study

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