

Patterns in prior antiplatelet therapy and impact on outcome in patients with ACS. Results from the Global Registry of Acute Coronary Events

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Background: Much evidence exists to suggest that chronic use of aspirin or AP therapy in patients with heart disease reduces the risk of ACS. It is less clear whether aspirin reduces the risk of morbidity or mortality in patients who develop an ACS in spite of its use. These patients may be 'aspirin resistant', representing a high-risk group with poor outcomes. Using data from the GRACE study, we aimed to identify patterns in prior aspirin use and associated outcomes.

Methods and results: Data from 6865 patients, with or without a history of heart disease and use of chronic aspirin or AP therapy, were analyzed. Patient baseline characteristics, type of ACS, and in-hospital events were compared (Table). Chronic aspirin or AP therapy had been used in 55% of ACS patients with a history of heart disease and in 11% of patients with no history of heart disease. Patients on aspirin or AP therapy were older, more likely to have diabetes or hyperlipidemia, and more likely to present with NSTEMI.

In patients with a history of heart disease, multivariate analysis controlling for variations in clinical and demographic variables, showed that chronic aspirin therapy was protective against in-hospital mortality (OR 0.64, 95% CI 0.48–0.84) and CHF (OR 0.79, 95% CI 0.68–0.93).

Conclusions: In this multinational group of patients, only half of the patients with a history of heart disease were on chronic aspirin or AP therapy, despite evidence-based guidelines advocating this approach. Patients with ACS who were previously on aspirin or AP therapy were less likely to present with an STEMI, develop CHF, or to die while in hospital.

	History of heart disease		No history of heart disease	
	Prior aspirin/AP	No prior aspirin/AP	Prior aspirin/AP	No prior aspirin/AP
	Patients (%)			
Mean age in years	67	65	71	62
Diabetes	28	24	23	17
Hyperlipidemia	57	37	36	27
STEMI	18	38	41	60
NSTEMI	28	30	44	28
UA	54	33	16	12
In-hospital mortality	3.5	6.1	8.7	5.9
CHF	15.9	20.5	4.7	4.0

Table. Baseline characteristics, type of ACS, and in-hospital events of ACS patients with and without a history of heart disease and use of aspirin or AP therapy