

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.elsevier.com/locate/crvasa>

Review article

Dual antiplatelet therapy in patients with acute coronary syndrome treated by surgical revascularization



Jiří Pařenica^{a,b,c,*}, Petr Němec^{c,d}

^a Internal Cardiology Department, University Hospital Brno, Jihlavska 20, Brno, Czech Republic

^b Faculty of Medicine, Masaryk University, Kamenice 5, Brno, Czech Republic

^c International Clinical Research Centre, St. Anne's University Hospital in Brno, Pekařská 53, Brno, Czech Republic

^d Centre of Cardiovascular and Transplantation Surgery, Pekařská 53, Brno, Czech Republic

ARTICLE INFO

Article history:

Received 18 January 2014

Received in revised form

26 April 2014

Accepted 29 April 2014

Available online 24 May 2014

Keywords:

ACS

CABG

Surgery revascularization

Dual antiplatelet therapy

Ticagrelor

Clopidogrel

ABSTRACT

Twelve months dual antiplatelet therapy (DAPT) based on a combination of acetylsalicylic acid and purine receptor P2Y₁₂ inhibitor is a standard for all patients with acute coronary syndrome (unstable angina pectoris, NSTEMI and STEMI). Previous sub-analysis of CURE and ACUTY studies suggested that DAPT could bring benefit even for patients treated by surgical revascularization. Sub-analysis of PLATO trial conducted on 1261 patients, who underwent surgical revascularization within 12 months, demonstrated a reduction of cardiovascular and total mortality within a group of patients treated by ticagrelor and acetylsalicylic acid compared to patients treated by clopidogrel and acetylsalicylic acid.

© 2014 The Czech Society of Cardiology. Published by Elsevier Urban & Partner Sp. z o.o.

All rights reserved.

Contents

Introduction	e247
Antiplatelet therapy for patients post-CABG with a stable form of CAD	e247
Dual antiplatelet treatment with clopidogrel together with ASA after CABG in CURE and ACUTY studies in ACS patients	e247
Comparison of dual antiplatelet therapy with ticagrelor plus ASA compared to clopidogrel plus ASA in ACS patients treated with surgical revascularization in the PLATO study	e248
Bleeding events in CABG-treated patients in the PLATO study	e248
Factors affecting lower post-CABG mortality in the group of patients treated with ticagrelor compared to clopidogrel.	e248
Dual antiplatelet therapy in the Triton-TIMI 38 study based on combining prasugrel and ASA.	e249

* Corresponding author at: Cardiology Department, University Hospital Brno, Jihlavska 20, Brno 625 00, Czech Republic. Tel.: +420 532232651; fax: +420 532232907.

E-mail addresses: jiri.parenica@atlas.cz, parenica@fnbrno.cz (J. Pařenica).

<http://dx.doi.org/10.1016/j.crvasa.2014.04.005>

0010-8650/© 2014 The Czech Society of Cardiology. Published by Elsevier Urban & Partner Sp. z o.o. All rights reserved.

Risk stratification of patients with NSTEMI and coronary angiography timing	e251
Current DAPT strategy in patients prior to and after surgical revascularization for acute coronary syndrome.	e251
Conflict of interest	e252
Funding body	e252
Ethical statement	e252
References.	e252

Introduction

According to current ESC guidelines for the management of acute coronary syndrome in patients presenting with or without ST-segment elevation, patients should undergo 12 months of dual antiplatelet therapy (DAPT) after the myocardial infarction irrespective of whether they are treated with percutaneous coronary intervention or conservatively, with pharmacotherapy only [1,2]. Part of the patients hospitalized due to acute coronary syndrome (ACS) are treated with a coronary artery bypass graft (CABG) in the acute stage, electively after discharge or later because of progression of atherosclerosis or development of in-stent restenosis. The number of patients treated with invasive strategy at a higher age is growing along with the improved care for patients with ACS. According to the Euroheart ACS 2001 survey of patients who underwent coronary angiography for ACS suspicion, a total of 35.2% of men and 29.8% of women aged 55–64 years, 38.8% of men and 34.1% of women aged 65–74 years, and 46.6% of men and 40.1% of women aged over 75 years had a three-vessel disease [3]. Table 1 illustrates the growing portion of invasively examined patients with ACS between 1999 and 2008 (from 43% up to 85%); increasing proportion of patients were treated with percutaneous coronary intervention (PCI) (from 21% up to 64%), while the number of patients treated with surgical revascularization remains stable and moves around 11%.

The question remains whether a patient after ACS in whom significant and unstable atherosclerotic lesions were bridged by CABG (arterial or venous) is stable and should be treated similarly as a patient after surgical revascularization for the stable form of coronary artery disease (CAD), or whether he

still remains a patient after ACS with the presence of an unstable atherosclerotic plaque and should be treated with dual antiplatelet therapy for 12 months after the onset of ACS.

Antiplatelet therapy for patients post-CABG with a stable form of CAD

According to ACCF/AHA guidelines, patients with a stable form of CAD post-CABG revascularization should be treated with acetylsalicylic acid (ASA) in a dose of 100–325 mg, which should be administered perioperatively or as soon as the patient's bleeding is stabilized – ideally 6 h after the surgery and after 48 h at the latest. Clopidogrel is the alternative in the case of ASA intolerance. This treatment lowers the risk of venous graft closure. Warfarin did not turn out to be as effective [4]. Two smaller recent studies demonstrated that DAPT based on the combination of ASA with clopidogrel could also be beneficial for such stable patients after CABG. López et al. reported in a group of 237 patients treated by CABG off-pump that during 24-month follow-up, rehospitalization for ACS decreased (10.9% vs. 3.7%, $p = 0.035$), and combined end-point occurrence decreased as well (ACS, revascularization, stroke and cardiovascular deaths; 18.8% vs. 8.3%; $p = 0.02$) with dual antiplatelet therapy [5]. Gao et al. have demonstrated lower risk of venous graft closure after three months of DAPT with ASA plus clopidogrel compared to ASA itself (91.6% vs. 85.7%, $p = 0.043$) [6].

Dual antiplatelet treatment with clopidogrel together with ASA after CABG in CURE and ACUTY studies in ACS patients

Comparison of dual antiplatelet therapy with the combination of ASA plus clopidogrel vs. ASA itself in ACS patients presented without ST elevation was evaluated in the CURE study (clopidogrel in unstable angina pectoris to prevent recurrent ischemic events). Out of the total of 12,562 patients, 2072 underwent surgical revascularization during the course of the study. The sub-analysis results were consistent with the results of the entire study; the occurrence of combined primary end-point (cardiovascular deaths, MI or stroke) was lower in the group of patients treated with DAPT; however, without reaching statistical significance (14.5% vs. 16.2%; RR = 0.98; 95% CI 0.71–1.11). The outcome was similar in patients treated both in the early stage of ACS and during the entire course of the study. The positive effect of DAPT was seen especially during the period prior to surgical revascularization. After surgery, the median of DAPT interruption (study medication) was 10 days and DAPT was initiated again in 75.3% of the patients. The occurrence of cardiovascular events

Table 1 – Part of patients with acute coronary syndrome in studies and registers who were examined invasively and treated by percutaneous coronary intervention (PCI) and surgical revascularization (CABG) between 1999 and 2008.

	Coronary angiography	PCI	CABG
CURE (1999) [13]	43.7%	21.2%	16.5%
EHS-ACS I (2000) [3]	52.0%	25.4%	5.4%
GRACE registry (2000) [14]	53%	28%	10%
EHS-ACS II (2004) [15]	62.9%	37.1%	7.4%
CZECH registry (2005) [16]	85%	54%	12%
PLATO (STEMI and NSTEMI) (2008) [17]	81.4%	64.1%	10.2%

PCI, percutaneous coronary intervention; CABG, coronary artery bypass graft.

Download English Version:

<https://daneshyari.com/en/article/5877451>

Download Persian Version:

<https://daneshyari.com/article/5877451>

[Daneshyari.com](https://daneshyari.com)