Letter to the Editor

EACTS guideline on antiplatelet and anticoagulation management in cardiac surgery

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In the July issue of the EJCTS, Dunning and co-workers published the EACTS guidelines on antiplatelet and anticoagulation management in cardiac surgery [1]. We have read with great interest these guidelines and we would like to underline a few points that we understand need further clarification.

1. The ACC/AHA guidelines 2006 recommend the addition of aspirin 75–100 mg once daily to therapeutic warfarin for all patients with mechanical heart valves and those patients with biological valves who have risk factors (Level of Class I, Evidence: B) [2]. The ACCP 2008 guidelines recommend the addition of ASA only in patients with mechanical valves and additional factors for thromboembolism (AF, hypercoagulable state or low ejection fraction) (grade 1B).

2. The EACTS guidelines recommend that aspirin should be given postoperatively to all patients with CABG to improve graft patency with a dosage of 150–325 mg. The recommendation given is not acceptable because the currently available evidence is not in favor of this high dosage. Lower dosage such as 75–100 mg has shown to be effective; the advantage of using 325 mg is not statistically demonstrated, so from a legal point of view also, the EACTS should maintain the possibility to recommend a lower dosage too, as rightly stated by the ACCP 2008 guidelines and previously by the ACC/AHA guidelines [3].

3. It is so far not acceptable that the guidelines give an indication on the use of clopidogrel for the prevention of vein graft occlusion based on a study that has not been yet published, as well as indicating the use of clopidogrel and aspirin for 9–12 months for patients having cardiac surgery for acute coronary syndrome. The CAPRIE [4] and CURE [5] studies were not originally designed to investigate this topic; in addition, there was lack of information about cardiac surgery procedures.

Although guidelines are not law, they are gaining greater legal value; therefore, it would be necessary to keep the recommendations not so strict in the case of weak evidence as it is the case.

References


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Reply to the Letter to the Editor

Reply to Colli and Mestres.
Controversial issues regarding aspirin and clopidogrel therapy for patients after cardiac surgery

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I thank Dr Colli for his comments [1] and also for all his hard work over the last few years with the ACTION registry [2] looking to resolve important issues over anticoagulation after bioprosthetic aortic valve replacement.

Guidelines are an ever-moving field and the AHA/ACC, ACCP and ERC all provide an outstanding service in regularly updating their guidelines. The EACTS guideline on antiplatelet and anticoagulation management, accepted for publication in February 2008 and published in July 2008 are the second in the series of EACTS guidelines. In the future we will
also aim to update these guidelines on a regular basis taking into account the results of fully published papers as they become available and also of subsequent guidelines published after our first version such as those by the ACCP [3].

We agree with your first point that aspirin is recommended at a low dose by the ACC and AHA in addition to warfarin, and that the ACCP are more careful with their recommendation. Our recommendation for aspirin in addition to warfarin was based on our literature review of the 11 original trials performed in this area together with consideration of these trials by 12 meta-analyses or other guidelines [4]. We caution that this policy would increase the incidence of bleeding complications but reduce thromboembolic events with a number needed to treat of 19.

Our systematic review of the dosage of aspirin after coronary artery surgery was also summarised and published in the ICVTS prior to our recommendation and we discussed in some detail the difficulties in the literature and also the controversy regarding the dosage of aspirin in these large trials, which are now in some cases almost 20 years old. While some guideline agencies recommend lower doses, many others recommend higher doses. In particular the high quality meta-analysis by Lim et al. [5] published in the British Medical Journal in 2003 using novel analytical techniques actually recommended a dose of 300—325 mg. Thus together with the lack of evidence that 150 mg of aspirin causes a higher incidence of gastrointestinal complications compared to 75 mg and also with second level evidence of aspirin resistance in some patients that we considered, but did not include in the final review, we concluded that 150 mg would be our final minimum dosage.

With regard to recommending clopidogrel for postoperative cardiac surgical patients, we again fully reviewed the evidence and published this in the ICVTS in two papers prior to publication of the guideline. We summarised the evidence from 11 papers and guidelines, and we in reference referred and endorsed the 2004 ACCP recommendation that states that ‘clopidogrel should be started in addition to aspirin and continued for 9—12 months after CABG for non-ST segment elevation acute coronary syndrome’. This was given a grade 1C recommendation by the ACCP.

Thank you once again for your interest in our guideline process and for your active research in this area to resolve the important unanswered issues of antiplatelet therapy in bioprosthetic valvular heart disease.

References


Letter to the Editor

T2 weighted images as a useful tool in determining myocardial viability in patients performing cardiac magnetic resonance imaging

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We read the article published by Sozzi et al. [1] with great interest and we must thank the authors for such a descriptive study on this case which emphasises the importance of cardiac magnetic resonance imaging (MRI) as an evolving tool that is capable of delineating nonviable or infarcted myocardium from potentially salvageable myocardium, with the additional advantages over the usual nuclear and PET methods of having high spatial resolution and shorter examination time. We would like to add another point specific to the case mentioned by the authors.

The patient presented with an inferior STEMI but had a previous history of an anterior myocardial infarction. Those groups of patients can be particularly challenging in interpretation of their cardiac MRI. Areas of acute or chronic infarction may be difficult to distinguish using cine or delayed enhancement MR images. Both acute and chronic infarctions can be non-specific and require knowledge with respect to the clinical setting. We advise combining knowledge from coronary catheterisation, which may aid interpretation of the MRI results. For example, patients with large acute myocardial infarctions usually have micro-vascular obstruction with delayed first pass enhancement on MRI. However, a patient with chronic infarction and total occlusion of a coronary territory may also show delayed first pass enhancement in that coronary distribution. Both types of patients will have delayed enhancement on MR images obtained 10—20 min after injection of the gadolinium agent.