the annual stroke risk at 0–0.4% in such patients, compiled from studies with a cumulative 10,000 patient-years of follow-up, where warfarin was discontinued at a mean of 3.9 months (range 0–8 months) post procedure. However, if mitral valve surgery is performed concomitantly, stroke rates off warfarin can rise up to 4.2% per annum, with mitral valve repair carrying a greater stroke risk than replacement. Experimental transcatheater interventional procedures that aim to occlude the LAA (namely the WATCHMAN and PLAATO devices) have a higher risk of stroke in patients off warfarin; 0–3.8% per annum has been reported from trials comprising a total of 560 patient-years of follow-up in which no warfarin was given post-procedurally. Non-randomization of studies presents a major issue when analysing the evidence, and the conclusions should be viewed in light of this.

On the available evidence, we recommend cessation of anticoagulants at three months after established AF ablation procedures, but only after first considering the stroke-risk profile of the individual patient. This recommendation is concordant with the European Society of Cardiology’s 2010 guidelines for the management of AF [16].

References


eComment: Anticoagulants after atrial fibrillation ablation: the potential use of dabigatran

Authors: Ioanna Koniari, Department of Cardiothoracic Surgery, Patras University Hospital, Patras, Greece; Antonios Michalopoulos
doi:10.1510/icvts.2011.282319A

We read with great interest the review of Gray et al. [1] concerning the safety of warfarin discontinuation after successful surgery for atrial fibrillation (AF). According to the HRS/EHRA/ECAS Expert Consensus Statement [2], the discontinuation of warfarin therapy post ablation is not generally recommended in patients who have a CHADS2 score of >2 because of limited data regarding the safety of treatment cessation. A large body of evidence monitoring patients after curative procedures for AF, mostly after catheter ablation, highlights the fact that recurrent asymptomatic AF may occur commonly, depending on the type of AF, but on the thromboembolic risk in patients with AF recurrence. Therefore, the resumption of warfarin treatment should not be based on the CHADS2 score of >2 but on the patient’s specific risk factors. Thus, the discontinuation of warfarin after successful ablation should be based on risk factors. However, anticoagulation therapy using warfarin involves some inherent risks; in particular, the risk of bleeding is higher in patients with AF recurrence.

Risk factors include advanced age, hypertension, and structural heart disease. In patients with hypertension, persistent AF, and in older patients [3], thus, the discontinuation of warfarin after successful ablation should be based on risk factors. However, anticoagulation therapy using warfarin involves some issues, such as bleeding, intolerability or unstable INR control, all of which may be attributable to thromboembolism in patients who are taking warfarin. The Canadian Cardiovascular Society guidelines recommend that warfarin or dabigatran be used for oral anticoagulation in patients with a CHADS2 score of >1, and concluded that dabigatran is preferred over warfarin in most patients with AF who are at high risk for thromboembolic events.
patients [4]. This recommendation was based on the results of the RE-LY trial, which reported that dabigatran 150 mg po bid is superior to warfarin for the prevention of stroke with an equivalent risk of bleeding while dabigatran 110 mg po bid is equivalent to warfarin in terms of stroke prevention with a significantly reduced risk of hemorrhage [4]. Interestingly, a recent study concerning the use of dabigatran immediately after atrial fibrillation ablation revealed that there were no pre-procedural or intra-procedural thromboembolic episodes or bleeding in patients that received dabigatran. Moreover, there were no post ablation strokes, transient ischemic attacks, or systemic thromboemboli in any of the patients, rendering dabigatran a safe and well-tolerated alternative to warfarin after AF ablation [5].

References


eComment: Is it safe to stop anticoagulants after successful surgery for atrial fibrillation?

Author: Michael Poullis, Liverpool Heart and Chest Hospital, Thomas Drive, Liverpool L14 3PE, UK


Gray et al. provide an important evidence-based synthesis of the complex literature on atrial fibrillation and the safety of stopping anticoagulants [1]. Any evidence-based article is limited by the quality of the evidence base analysed, and their analysis raises a number of points. Firstly, the definition of ‘successful’ needs to be made clear. Periods of paroxysmal atrial fibrillation are associated with an increased stroke rate and may need anticoagulant therapy as a prophylaxis [2]. Within the definition of successful, documentation of mechanical atrial activity and not just electrocardiogram evidence of sinus rhythm needs to be included, as an akinetic atrium has increased thromboembolic potential [3]. Secondly, the exact surgical technique of atrial fibrillation surgery needs to be stated, and concomitant surgical procedure(s) identified. The risk of a thromboembolic event will be lower in coronary artery bypass surgery patients than in mitral valve repair/replacement patients having concomitant atrial fibrillation surgery. The technique of left atrial exclusion, if indeed it was performed (sometimes omitted in elderly patients with frail tissues), may also affect thromboembolic risk. Thirdly, the patient’s cardiovascular risk profile, via the CHADS2 score [4], is an important factor, as previously commented on by Koniari.