British Heart Foundation

Factfile 12/2000

Management of Atrial Fibrillation – Part 2

Prevention of Thromboembolism in atrial fibrillation

Atrial fibrillation (AF) (including paroxysmal AF) predisposes to thromboembolism, in particular cerebral embolism, as a result of stasis and thrombus formation within the left atrium. AF is found in 15% of all stroke patients and 2-8% of patients with transient cerebral ischaemic attacks. The risk of ischaemic stroke in patients with AF and rheumatic valve disease is particularly high. Even among AF patients without rheumatic heart disease, the risk is about 5% per annum but varies according the presence of specific risk factors. These are age above 75 years, hypertension, left ventricular dysfunction/heart failure, previous thromboembolism, diabetes mellitus and coronary artery disease.

After an initial embolic episode, the stroke recurrence rate is 12% per year and the annual risk of death is 5%.

How can thromboembolism be prevented?

Systemic anti-coagulation with warfarin reduces the risk of ischemic stroke by about 65%, while aspirin reduces the risk by only 20% and is significantly less effective than warfarin in randomised trials. Patients at high risk of ischaemic stroke as a result of one or more of the risk factors described above should receive indefinite warfarin therapy unless contraindicated. Patients aged 65-75 years without other risk factors are at moderate risk and may be treated with warfarin or aspirin. Patients below 65 years of age without additional risk factors are at low risk and do not require warfarin therapy.

The optimal target range for the INR during warfarin therapy is 2.0-3.0, which gives satisfactory protection and minimises the risk of haemorrhagic complications. In the over 75s, there is uncertainty as to the safety of higher ratios, and an INR target of 1.6 to 2.5 may offer a better balance between risk and benefit. Contraindications to warfarin therapy include an increased risk of bleeding due to co-existing medical conditions (e.g peptic ulcer), a tendency to falls or other trauma, the likelihood of poor compliance, or inadequate local facilities for INR monitoring.

Many drugs (including alcoholic binges) interfere with warfarin's metabolism and care about concomitant medications is important. Among cardiac drugs, amiodarone potentiates the effect of warfarin. Warfarin and aspirin should only be given together in exceptional circumstances.

Anticoagulation after cerebral embolic stroke

Initiation of warfarin therapy should be delayed until at least two weeks have elapsed.

Anticoagulant cover for cardioversion

Left atrial thrombus may develop early after the onset of atrial fibrillation. If AF is of less than 48 hours duration, intravenous heparin may be initiated and cardioversion performed without delay. If the duration of AF is greater than 48 hours or is unknown, patients should be anti-coagulated with warfarin (as above) for a minimum of three weeks prior to cardioversion.

Cardioversion should not be undertaken unless the INR is within the therapeutic range (2.0-3.0). In view of atrial stasis even after successful cardioversion and risk of early relapse of atrial fibrillation, anticoagulation should be continued for a minimum of one month after cardioversion. Many authorities recommend a longer period of six months to ensure maintenance of sinus rhythm.

14 Fitzhardinge Street, London W1H 6DH
Telephone 020 7935 0185

Factfile is produced by the British Heart Foundation in association with the British Cardiac Society and is compiled with the advice of a wide spectrum of doctors, including general practitioners. It reflects a consensus of opinion.

Further Reading:

Lip GY, Lowe GD. ABC of atrial fibrillation. Antithrombotic treatment for atrial fibrillation. BMJ 1996;312:45-49.

Hart RG, Benavente O, McBride R, Pearce LA. Antithrombotic therapy to prevent stroke in patients with atrial fibrillation: a meta-analysis. Ann Intern Med 1999;131:492-501

Supplement

Factfile 12/2000 – Management of Atrial Fibrillation - Part 2

The statement about combining warfarin and aspirin "only in exceptional circumstances" was queried by several readers. In making this statement the author specifically referred to prophylaxis against thrombo-embolism in patients with atrial fibrillation. It was not intended to apply to those patients who take aspirin for coronary artery disease or transient ischaemic attacks.

Available evidence suggests that the risk reduction achieved with the use of aspirin post myocardial infarction is much the same as that obtained with warfarin. To date no studies have specifically addressed the question as to whether added benefit is obtained from aspirin in patients who are already taking warfarin. Currently this is not an area in which evidence-based medicine provides us with an answer.

Diets.
Our medical information Helpline and other departments within the Foundation are frequently contacted about a so called "3 Day diet" which, from time to time is attributed to the British Heart Foundation. We wish to assure our readers that the "3 Day diet" is not recommended by us, nor have we had any hand in its construction.

Our advice relating to eating for your heart is contained in the Heart Information Series pamphlet No. 5 and more recently we have produced a further one entitled *"So you want to lose weight…for good. A guide to losing weight for men and women."*

The Website
People wishing to access our website are reminded that they must use the full title www.bhf.org.uk. Failure to include the last two letters will result in the "visitor" being mis-directed to an unauthorised site, the contents of which were as big a surprise to us as they may be to others.

Future topics.
Our programme of Factfiles is agreed by a small committee, chaired by the Medical Director, with suggestions coming from our four committees. However, we welcome suggestions from primary care, and these should be addressed to Nicki Cooper in the Education Department, at the British Heart Foundation, 14 Fitzhardinge Street, London, W1H 6DH.