

Flecainide

This factsheet is intended to help those affected by atrial fibrillation (AF) understand the medication flecainide, with a brief introduction to how it works, dosing and side effects.

Introduction

Flecainide is an antiarrhythmic (rhythm improving) medication, which was developed by the same company (3M) that gave us Scotch Tape and Post-it notes. It belongs to the class 1c group in the Vaughan-Williams antiarrhythmic drug classification. It has many uses for the correction of rhythm disorders of the heart.

How does it work?

Flecainide works through impairing sodium movement through channels in the cell membrane of the heart muscle tissue. Through this action it slows the electrical conduction of heart cells. This mainly affects the atria (upper chambers) and the ventricles (lower pumping chambers). This action is more pronounced during faster heart rates. It is due to this increasing efficiency of action with increasing speed that gives flecainide its value in tachyarrhythmias (fast, abnormal rhythms of the heart).

Clinical use

Antiarrhythmic: The only use of flecainide is for the treatment of rapid abnormal rhythms of the heart, usually when these rhythms are paroxysmal (i.e. they come and go). The medication is given to reduce the likelihood of heart rhythm disturbance.

Pill-in-the-pocket cardioversion: People who suffer from paroxysmal AF may be given flecainide to take only when they feel their heart change its rhythm from the normal sinus rhythm to abnormal AF. Please see the AF Association information sheets: Pill-in-the-pocket cardioversion, Cardioversion and Medical cardioversion.

Cardiac Arrhythmia Suppression Trial (CAST): This study was designed to investigate whether medications such as flecainide could be given to patients who had suffered a heart attack to improve their survival. In 1989 the part of the study looking at flecainide was terminated prematurely as it appeared that taking the medication reduced rather than improved survival rates. It was subsequently shown that flecainide tends to aggravate rather than suppress rhythm disturbances if the heart is not fully supplied with blood (in those, usually older patients, with coronary disease).

Some concerns about the use of flecainide in patients with coronary disease stem from this study. There are also concerns about the use of flecainide in Left Ventricular Hypertrophy (LVH is considered a contraindication in the ERSC 2012 Guidelines). If your specialist decides to use flecainide as a treatment for your arrhythmia it will be because they do not think you are suffering from heart failure (weakened pumping of the heart), thickening of the heart muscle (hypertrophy) or significant hardening of the coronary arteries which could put you at risk of heart attacks.

ECG changes: Because of the potential risk of drug toxicity, patients who are taking flecainide should have a periodic ECG recording (some recommend every six months), and while taking flecainide you may be informed that the pattern of your ECG has altered. This is to be expected from the mechanism of action of flecainide. It will slow conduction through the heart and therefore increase the time taken to conduct from the atrium to ventricle (PR interval on the ECG) and through the ventricles (QRS complex duration on the ECG). These changes generally indicate that the drug is working properly, but if the changes are marked (PR interval prolonged to an interval greater than, say, 250 milliseconds or QRS duration to greater than 160 milliseconds) drug toxicity may be the cause.

As stated previously, patients who are taking flecainide should have an ECG recorded possibly every six months. Blood levels can also be measured when there is doubt about the correct dose of the drug although in practice this is rarely needed.

When patients are prescribed flecainide it is important that they also receive either beta blockers or another rate limiting calcium antagonist (verapamil or diltiazem) to protect the ventricles from too frequent conduction from an atrial rhythm to the ventricles.

Side effects

Flecainide usually produces very few side effects but has the potential to cause other abnormal heart rhythms, and can occasionally produce other transient symptoms such as visual disturbances, light headedness or gastric discomfort. Should you experience any of the side effects, particularly breathlessness, chest pain or worsening of a heart rhythm problem, consult your specialist without delay rather than discontinuing the medication yourself.

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