Atrial fibrillation (AF) is a common disorder, in which the upper chambers of the heart, the atria, become affected by disorganised and chaotic electrical impulses, making them 'wobble' or fibrillate rather than squeezing normally with co-ordination and efficiency. The condition is more prevalent in older people.

The heart can lose up to 20% of its overall output in AF compared to when it is in normal rhythm, which is why some people can feel tired or more short of breath when in AF.

Heart failure (HF) is a medical term that simply means the heart is not pumping strongly enough to meet normal demands of the body. It can be caused by a range of illnesses and conditions. The symptoms can range from almost none, to leg swelling, severe breathlessness, which can restrict a patient from simply moving from a bed to a chair, or from getting dressed easily, and fatigue.

Heart failure is also known as congestive heart failure (CHF) or congestive cardiac failure (CCF).

Causes of HF may include heart attack (myocardial infarction) and other conditions such as high blood pressure, valvular heart disease, cardiomyopathy and arrhythmias such as AF also include congenital heart disease as a cause - birth defects that affect the normal workings of the heart.

Thanks to modern day treatments, many patients with HF will feel pretty normal performing everyday activities, but upon exertion, tiredness can come on much sooner than usual.

For a variety of reasons, occurrence of AF becomes much more likely in someone who has HF. The combination of AF and heart failure exacerbates the heart’s ability to pump efficiently further, and this may make the patient feel even worse.

The presence of AF increases the risk of someone suffering a stroke. When AF and heart failure are seen in the same person, this risk becomes much higher. If you are known to have AF together with heart failure, you and your clinician should discuss anticoagulation (sometimes known as blood thinning) medication to reduce the stroke risk.

AF in otherwise normal hearts can be difficult to treat because it is very patient-specific, but there are several medication and/or procedural options which are available to treat this condition. With heart failure, AF becomes more difficult and risky to treat, and some of these drugs and procedures may even cause deterioration.

Thus, AF in association with heart failure causes real problems by

- increasing symptoms of heart failure
- increasing risk of strokes
- being more difficult to treat, with lower success rates and higher risks associated with treatments.

In the UK, cardiologists recognise AF and HF as a new ‘epidemic’ following an increase in diagnoses, and with cases set to rise in the future.

Whilst the combination of having AF and HF is a challenge, it is not all doom and gloom. Certainly, when AF first strikes a heart failure patient, the sudden change in heart rate and efficiency can make the patient feel terrible and may even provoke a stay in hospital. However, once balanced out, the outlook can be significantly better.
There are many specialist treatments that might be offered, but because these depend on specific and complex details, and every patient is different, patients should not feel disappointed if they do not qualify for some of these strategies.

Lifestyle changes such as stopping smoking, light exercise and dietary adjustments can alleviate HF.

Some treatments may be considered appropriate:

- cardioversion, usually in combination with powerful medication
- insertion of a pacemaker or ventricular assist devices
- pacemaker combined with ablation of the AV node (“ablate and pace”)
- ablation, to address the AF.
- medications such as diuretics and anti-arrhythmics

The important point is that if a patient with HF develops AF, they should be assessed reasonably quickly, even if they feel relatively well, as changes in treatment will almost certainly be necessary.

Further information can be found in AF Association information resources:

- Pacemaker and AV Node Ablation for AF patient information fact sheet
- Ablation for atrial fibrillation patient information booklet
- Cardioversion of atrial fibrillation patient information booklet

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