

Atrial fibrillation: is it a dangerous or innocent arrhythmia?

BACKGROUND

Atrial fibrillation is the most common sustained arrhythmia (abnormal heart rhythm) and its prevalence increases with age. Atrial fibrillation can occur in an otherwise normal heart or affected by valvular, coronary or heart muscle disease. Under normal conditions, the atria contract in synchronism with the ventricles (Figure 1). In atrial fibrillation, the atria do not contract jointly, but in an uncoordinated manner. The ventricles try to follow atrial contraction, but their contraction is irregular and quick, often with more than 150 beats per minute. Atrial fibrillation is easy to suspect just by taking the pulse (it is irregular and beats are variable in strength) and easy to confirm in the electrocardiogram (Figure 2). Failure of rhythmic contraction is associated with lower cardiac contractile efficiency and predisposes to the formation of clots that may break loose (embolism) and provoke a stroke.

SYMPTOMS

Most patients report palpitations, dizziness, oppressive chest pain (angina), shortness of breath (dyspnea) and fatigue. However, in many patients there are no specific symptoms and the arrhythmia is revealed during a physical examination or routine electrocardiogram. Younger patients with intermittent atrial fibrillation tend to have more pronounced symptoms.

PRESENTATION

1. Bouts that end spontaneously without medical intervention (paroxysmic atrial fibrillation).
2. Episodes requiring medical intervention to restore normal heart rhythm.
3. Arrhythmia that persists over time (chronic atrial fibrillation).

ARRHYTHMIA TREATMENT

Treatment consists in reverting arrhythmia to normal heart rhythm or controlling heart rate. There are drugs to revert arrhythmia (and prevent recurrence) and others to normalize the heart rate. The classical method to end a persistent episode of atrial fibrillation is electrical cardioversion, which involves delivering an electric shock through the chest with the patient under a brief anesthesia.

TREATMENT OF COMPLICATIONS

Embolic stroke is the most feared complication, which may lead to death or irreversible neurological sequelae (coma, paralysis, inability to understand or produce language). These complications are highly avoidable with long-term anticoagulant therapy. The recent appearance of new drugs has simplified anticoagulant treatment, using fixed doses that do not require regular blood tests.

NEW TREATMENTS

In many patients, atrial fibrillation may be cured by endovascular procedures with catheters introduced into specific atrial chamber sites to cauterize tissue where the arrhythmia originates (ablation).

IS AN ARRHYTHMIA INNOCENT OR DANGEROUS?

In many patients, atrial fibrillation may be cured by endovascular procedures with catheters introduced into specific atrial chamber sites to cauterize tissue where the arrhythmia originates (ablation).

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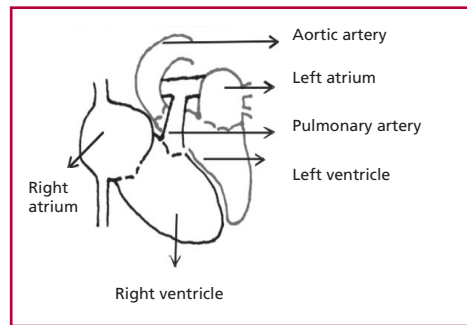


Fig. 1. Normal heart.

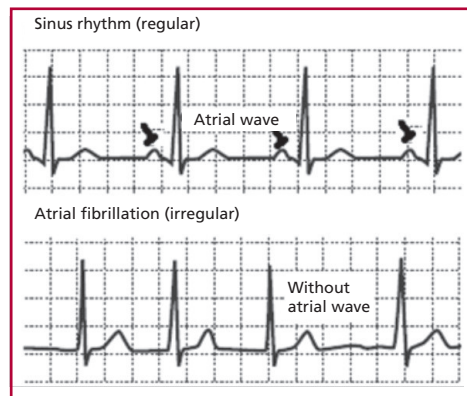


Fig. 2. Electrocardiogram. Upper trace: normal heart beat (regular). Lower trace: Atrial fibrillation (irregular).

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QUESTIONS YOU CAN MAKE ON THE WEB

- Argentine Society of Cardiology (Consensus Area).
- <http://www.SAC.org.ar/consensos>
- Allende NG, Rodriguez Pagani C, Carrasco E, Marambio G, Lopez Soutric G, Cintora F et al. Correlation Between CHA2DS2-VASc Score and Atrial Thrombus in Patients with Atrial Fibrillation Undergoing Cardioversion. Rev Argent Cardiol 2013, 81: XXX-XXX.
- <http://dx.doi.org/10.7775/rac.es.v81.i2.1079>
- http://www.escardio.org/guidelines-surveys/esc-guidelines/GuidelinesDocuments/Guidelines_Focused_Update_Atrial_Fib_FT.pdf
- <http://www.nice.org.uk/nicemedia/live/13590/60946/60946.pdf>

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