

Supraventricular Tachycardia

<http://www.advocatehealth.com/system/info/library/articles/heartcare/common/supratac.html>

Supraventricular tachycardia (SVT) is a general term describing any rapid heart rate originating above the ventricles, or lower chambers of the heart. SVT is an arrhythmia, or abnormal heart rhythm. Specific types of SVT include atrial fibrillation, AV nodal re-entrant tachycardia, and Wolff-Parkinson-White syndrome.

SVT generally begins and ends quickly. Many people experience short periods of SVT and have no symptoms. However, SVT becomes a problem when it occurs frequently or lasts for long periods of time and produces symptoms. Common symptoms associated with SVT include palpitations, light headedness, and chest pain. SVT may also cause confusion or loss of consciousness.

Treatment

Treatment of SVT is aimed at correcting the cause of the arrhythmia or controlling the rapid heart rates. SVT can occur because of poor oxygen flow to the heart muscle, lung disease, electrolyte imbalances, high levels of certain medications in your body, abnormalities of the heart's electrical conduction system, or structural abnormalities of the heart. Your doctor will try to correct the cause of the SVT. However, if there is no apparent cause for the SVT, methods of controlling the periods of rapid heart rates are tried. Medications are generally helpful in maintaining a normal heart rhythm.

Interventions such as cardioversion or electrophysiology study/catheter ablation may be required to control the SVT. Please refer to these sections for information on these procedures.

AV Nodal Re-entrant Tachycardia

AV nodal re-entrant tachycardia is an arrhythmia, or abnormal heart rhythm. This arrhythmia is seen on an EKG as periods of fast heart rates. The fast heart rates occur because of an abnormality in the electrical conduction system of the heart. The electrical system is responsible for telling the heart muscle to contract and relax.

Normally, each heart beat begins in the SA node. The SA node is a group of cells located in the upper right chamber of the heart. An electrical impulse travels from the SA node and across both upper chambers, and then travels to the AV node. The AV node is another group of cells which is located between the upper and lower chambers of the heart. The impulse passes through the AV node and down to the lower chambers, causing them to contract. Each contraction of the lower chambers produces a heart beat.

The AV node normally has one group of cells through which the electrical impulse can travel. However, in AV nodal re-entrant tachycardia, the AV node has two or more groups of conductive cells. Because of the extra conduction pathways, your heart can at times beat more quickly than normal. An abnormal fast heart rate can cause symptoms of light headedness, palpitations, chest pain, or loss of consciousness.

Treatment

Your physician will try to control your periods of rapid heart rates with medications. AV nodal re-entrant tachycardia generally responds well to medications. Your physician may also suggest an electrophysiology study/catheter ablation to cure this arrhythmia. Please refer to these sections for further information on these procedures.