Everything You Need to Know About AFib With RVR

by JEFFREY REDEKOPP

What is AFib With RVR?

Atrial fibrillation (AFib) is the most frequent human heart arrhythmia and increases in prevalence as we age. People over the age of 65 have an almost fivefold increase in the occurrence of AFib than those under 65. AFib causes the heart's upper chambers, called the atria, to contract at irregular intervals because they receive irregular electrical impulses instead of the normal synchronized ones. In some cases, the transmission of a high percentage of these impulses to the ventricles causes them to beat out of control at speeds faster than 100 beats per minute, creating a situation called a rapid ventricular response (RVR). So, what is AFib with RVR? We will explain it.

For people who have AFib with RVR, it is vital to seek medical treatment immediately to slow the rhythm and prevent the possibility of severe complications.

Differences Between Controlled AFib vs. AFib With RVR

Controlled AFib is different from AFib with RVR because of the differences in heart rate. Individuals with controlled AFib have heart rates that range from 60 to 100 beats per minute.

People with the RVR type of AFib often experience heart rates of 150 to 220 beats per minute. The accelerated heart rate causes an increased demand on the heart muscle and also produces instability in a person's blood pressure response.

Categories of AFib With RVR

Much like controlled AFib, AFib with RVR falls into different classes according to how long the disorder lasts. The groups of AFib with RVR are:

- **Paroxysmal:** indicating that the problem comes and goes without warning. Paroxysmal AFib with RVR can last minutes to hours and can resolve on its own without medical treatment.
- **Persistent:** means that the condition will not return to normal unless there is some medical intervention.
- **Long-standing persistent:** lasts at least one year.
- **Permanent:** the heart rhythm is unable to return to normal and requires medication, an implanted device such as a pacemaker, or a surgical procedure to regulate the heart rate.

Symptoms of AFib With RVR

If you have AFib with RVR, chances are you have experienced one or more of the following symptoms:

- Dizziness or feeling faint.
- Fatigue.

- Feeling like your heart is fluttering.
- Inability to tolerate physical activity.
- Pressure or tightness in your neck.
- Tightness or pounding in your chest.
- Shortness of breath.
- Weakness or loss of energy.

In some cases, like in controlled AFib, AFib with RVR presents with no symptoms and is only detected with an EKG or another diagnostic tool.

Many people report that the symptoms they have with episodes of AFib with RVR are much more uncomfortable than those associated with controlled AFib.

If these symptoms happen, it is important to seek medical attention early so that your heart rate regains control before more problems occur.

The Dangers of AFib with RVR

In AFib with RVR, the lower chambers of the heart, called the ventricles, are unable to move enough blood out to the lungs and the rest of the body because they fail to fill completely.

AFib with RVR is not fatal, but if it isn't addressed, over time the situation will lead to the start of congestive heart failure.

Congestive heart failure is a higher risk for people that have AFib with RVR if they have another type of heart condition. If you already have congestive heart failure, AFib with RVR can make the problem worse.

People who have AFib with RVR are also at a higher risk for stroke because of the increased chance for blood clot formation. AFib coupled with RVR can also lead to cardiogenic shock, which happens due to a decrease in the heart's output and reduces oxygen flow to muscles and other tissues.

AFib with RVR is more severe than other types of AFib and requires that you seek swift medical attention.

How's It Diagnosed?

Your physician will diagnose AFib with RVR using several different methods:

- A chest x-ray scheduled to check whether other heart or lung conditions are present and causing or contributing to the problem.
- An EKG reading performed in the emergency room or the outpatient clinic.
- Blood tests that are often used to rule out the possibility of other issues that can cause related problems.
- Prescribing a Holter monitor, which is a wearable portable device that tracks and records your heart rhythm for a 24-hour period.
- Ordering an event recorder, which is like a Holter monitor but tracks the heart rate and rhythm. If the individual has symptoms, they are to activate the device.
- A stress test that monitors your heart rate and rhythm during exercise that can detect other issues contributing to AFib.
- An echocardiogram, which helps to determine your heart muscle's pumping capacity, and will also show if any blood clots have developed because of your AFib.

If your test results show you have AFib with RVR, your physician will design an individualized plan of care to meet your needs.

Treatment Options

The primary treatment goal for RVR in AFib is to decrease the heart rate. Medications are the first choice to control and convert AFib back to normal. If drugs do not work for you, electrical cardioversion is the second step.

An implantable device, such as a pacemaker, is often a good choice in instances of long-standing AFib with a fluctuating rate. In some cases, a cardiac ablation is also a viable option.

Medications

The primary class of drugs used for rate control is beta-blockers, which slow the heart rate quickly and reduce symptoms. Propranolol and esmolol are two of the most used beta-blockers for AFib.

A secondary class of medications, known as calcium channel blockers, also decrease heart rate. Diltiazem and verapamil are two frequently prescribed choices.

A separate group of medications known as antiarrhythmics, or rhythm control drugs, are strong acting and designed to convert AFib back to a normal rhythm. Examples of antiarrhythmics are amiodarone, flecainide, procainamide and sotalol.

Some of these AFib medications will require you to take them on a long-term basis.

Cardioversion

When AFib with RVR fails to respond to medication, and you are experiencing adverse signs and symptoms, shocking the heart out of the irregular rhythm becomes necessary.

If you have no symptoms, cardioversion is an option for your physician to consider if the AFib with RVR has lasted more than 48 hours and you are not taking any anticoagulant medications.

The procedure, called cardioversion, involves sedating the individual with a mild anesthetic and placing the paddles of a defibrillator on the chest to deliver a shock. The defibrillator uses electrical current to jolt the heart out of AFib and back to a normal rhythm. The rate of electrical current, called joules, is set at 120 to 200 joules, with more than one shock available if needed. Soreness in the chest is sometimes a side effect after cardioversion.

If the abnormal rhythm responds to cardioversion but returns, the next recommendation is an ablation procedure.

Cardiac Ablation

Cardiac ablation is a minimally invasive technique used to create tiny burns around the heart or the pulmonary vein that block the altered electrical pathway causing the rhythm and rate issue. Ablation takes place in the hospital, often under general anesthesia.

Ablation is not an emergency intervention and occurs at a time when the individual’s condition is stable. For many people, ablation can prevent recurrence of AFib with RVR.

The physician passes a small flexible wire through a vein in the neck or groin and threads it up to the heart. Once the wire is in position, the physician sends an electrical impulse through it that creates heat and burns the heart tissue responsible for creating the AFib.

Cold is an option to use in place of heat, which will freeze the area causing the AFib. Hospitalization for ablation is usually one or two days.

You will need to take an antiarrhythmic medication for a few months after ablation to ensure the heart maintains a normal rhythm. Symptoms are typical for a brief amount of time while the heart is recovering from the surgery.

After your ablation, you will receive instructions on activity restrictions to allow your heart and incision site time to heal. Soreness in your incision site is normal and will resolve with time.

Pacemaker Implantation

For people who remain in AFib with RVR without resolution after attempting drugs and cardioversion, a pacemaker is often the final choice.

The pacemaker is roughly the size of a silver dollar. A cardiologist performs a minor procedure and places the appliance beneath the skin in the left upper chest area.

The pacemaker has wires called leads that attach to different areas of the heart. The leads use electrical current to help regulate heart rate and rhythm to keep it under control.

Pacemaker implantation often requires a hospital stay of roughly 24 hours with the individual released home the day after the procedure.

People receive instructions not to raise their arm over their head on the side of their procedure for a few weeks to allow the wires and the surgical incision to heal.

My Experience of AFib With RVR

My experience of AFib with RVR occurred on the evening of December 30, 2011. My heart rate suddenly accelerated while I was eating a bowl of ice cream topped with frozen blueberries.

My pulse rate was too fast to count, and I experienced tightness in my chest and up into my neck, shortness of breath, weakness, fatigue and dizziness. I also felt a fluttering sensation, like a butterfly was inside my heart trying to escape.

I arrived at the emergency room and had a nurse hook me up to an EKG monitor. The screen showed my heart rate was between 180 to 190 beats per minute. The ER physician ordered an IV beta-blocker and when this did not work followed with a calcium channel blocker, which yielded the same result. The cardiologist on call assessed the problem and then transferred me to the ICU, placing me on a slow flowing IV of antiarrhythmic medication. After seven hours, my heart converted to a normal rhythm, and the cardiologist discharged me.

Unfortunately, my AFib with RVR was not an isolated event. Over the next three and half years, I experienced six more episodes. My primary trigger was either heat or cold. In one instance, I was taking a hot shower in the morning and suddenly felt my heart jump into AFib. The other heat-related episode occurred while sitting in a hot tub in a foreign country. I was not fluent in the language and was not going to test the healthcare system, so I decided to ride out the eight-hour episode.

I also noticed that stress was a trigger, mainly when I was under a good deal of pressure at work.

One pattern I saw with my AFib with RVR was that occurrences lasted an average of eight hours. Some episodes resolved with medication, while others required cardioversion. A single event ceased on its own after medication and cardioversion had failed.

At this point, my cardiologist stated that I should consider cardiac ablation. He said I was a good candidate for the procedure because of my past medical history and because I had no other heart-related problems.

I had complete trust in my cardiologist. I had an existing professional relationship with him as he was also the medical director for the cardiac rehab department that I managed.

He referred me to an electrophysiologist at a large heart center out-of-state. My ablation and was successful and I had to take an antiarrhythmic drug for three months after discharge.

However, I did have a brief incident of atrial flutter after returning home because of dehydration. The situation did require hospitalization for 24 hours, and I received fluids and a slow flowing IV of amiodarone, which corrected the problem.

To date, I have had no further flare-ups of AFib with RVR.

In Conclusion

AFib with RVR is a significant problem because if left untreated, it can lead to stroke, congestive heart failure and cardiogenic shock. If you experience a rapid heart rate with any of the symptoms discussed earlier, do not delay in seeking medical care.

There are a variety of treatment options available for managing AFib with RVR, with advances happening on a frequent basis. Ask your doctor about new protocols that might be the right choices for your situation.

With the right care, your AFib with RVR is manageable and will allow you to have an enjoyable and productive life.