Understanding AFib and Heart Failure

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How AFib and Heart Failure Are Related

Up to 40% of people who have heart failure also have a diagnosis of atrial fibrillation**.** People with both atrial fibrillation and heart failure have higher mortality rates than people who do not have both diagnoses.

When heart failure is present, the heart is not able to effectively pump the blood throughout the body efficiently. Fluid accumulates in the lungs and other tissues of the body. The heart muscle may weaken, especially if the underlying causes of failure are not reversed or treatable.

Unfortunately, atrial fibrillation lowers the heart's ability to pump even further. The measurement of the heart's ability to pump blood is known as an ejection fraction. A high ejection fraction means that the heart is pumping more effectively than if a low ejection fraction is present.

When atrial fibrillation occurs, the electrical impulses in the upper parts of the heart, known as the atria, are disorganized and extremely rapid. The upper part of the heart does not contract well. It interrupts the entire organ's orderly pattern of filling with blood and pumping it throughout the body. Atrial fibrillation may reduce the heart's ability to effectively pump blood by 25%.

If heart failure is already present, atrial fibrillation compounds the problem and makes it more severe. Both conditions may increase the heart's oxygen requirements. The heart has to work harder. If the muscle is already damaged, further injury may occur. People who have heart failure are more likely to develop abnormal heart rhythms, including atrial fibrillation. A vicious cycle may ensue.

Individuals who suffer from heart failure, atrial fibrillation, or both are more likely to experience transient ischemic attacks, TIAs which are also known as mini strokes, and cardiovascular accidents, CVAs, often referred to as strokes.

Study Shows Surprising Relationship

Medicare is a United States government sponsored insurance program which provides coverage for disabled individuals and people over the age of 65. Researchers examined outcomes for patients over the age of 65 who were hospitalized for heart failure. They found that patients who had AFib had a moderately higher risk of readmission to a hospital within 30 days of discharge after treatment for heart failure when compared with individuals who did not have both diagnoses.

The researchers also discovered that some patients who had both diagnoses were more likely to die during the 30-day period after discharge from the hospital. Among people who had a high ejection fraction, the rates of dying increased during the 30-day period, while it did not among individuals who had the more serious disease.

The researchers concluded that the degree of heart failure was not a reliable predictor of outcomes. They stated

that better management of AFib needs to be emphasized when treating patients who have heart failure and atrial fibrillation.

Next page: stroke risk and other conditions associated with heart failure.

Stroke Risk

Several research projects have been conducted to explore the relationship of stroke, atrial fibrillation, and heart failure. Some researchers evaluated the effectiveness of different medications on decreasing the risk of stroke. Others looked at an array of factors, including sex and age. The severity of illness was evaluated too.

Researchers evaluated individuals who had heart failure and atrial fibrillation. All of the participants had received blood thinning medications which are known as anticoagulants. The researchers evaluated the people for over three years. They discovered that individuals most likely to have a stroke were over seventy five years of age, female, and had a history of a previous stroke or TIA. The research also revealed that the severity of heart failure did not influence the likelihood of having a stroke. (Sandhu, R, et al. 2015)

A soon to be published study (Rolf, S. et al. 2015) indicated that more emphasis may need to be placed on the use of medications and other therapies designed to restore normal heart rhythm. It may be that using medications which simply normalize how fast the heart beats does not sufficiently lower the risk of complications due to atrial fibrillation.

Other Conditions

A recent study was conducted in the Middle East. The researchers found that people who were admitted to the hospital for acute heart failure commonly had other health problems. Atrial fibrillation, high blood pressure, diabetes, and atrial flutter were common diagnoses. Like other researchers, they found that the risk of complications was greater among older individuals. However, complications occurred ten years earlier than among people in western countries.

Unlike people who had heart failure and atrial fibrillation in the west, the study participants had lower rates of receiving treatment with cardiac medications and other therapies. Hence, the rates of hospitalization and complications were higher. The researchers suggested that improving management of simultaneously occurring conditions may reduce the likelihood of complications and readmission to the hospital.

The Importance of Research

Research is necessary in order to develop health care protocols which are effective. This translates to fewer hospitalizations, less expense, improved quality of lives, and longer lifespans. It appears that individual, holistic approaches may be needed to optimally treat atrial fibrillation and heart failure. The revelation that the lack of treatment with cardiac medications and other therapies resulted in earlier complications is significant. Research indicates that treatment for heart failure and atrial fibrillation works and improves lives. It appears that heath care is on the right path for managing atrial fibrillation and heart failure, yet reveals that much remains to be learned. Better agents need to be developed in order to treat both conditions more effectively.