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The full report is titled “Sex Differences in Morphology and Outcomes of Mitral Valve Prolapse.” It is in the 2 December 2008 issue of *Annals of Internal Medicine* (volume 149, pages 787-794). The report was written by J.F. Avierinos, J. Inamo, F. Grigioni, B. Gersh, C. Shub, and M. Enriquez-Sarano.

Differences in Mitral Valve Prolapse between Men and Women

What is the problem and what is known about it so far?

Heart valves are thin tissues that form the opening between the different sections (chambers) of the heart. The valves keep blood flowing in the right direction through the heart. The valves open when blood is supposed to flow to the next chamber and close afterwards. The mitral valve is the valve between the left atrium to the left ventricle.

Mitral valve prolapse (MVP) is a condition in which the valve is baggy and balloons out. This ballooning causes the valve to make a characteristic snapping sound. When MVP becomes more severe, blood can flow backward through the valve because the valve does not close completely. This condition is called *mitral regurgitation*. Severe mitral regurgitation can lead to problems because the heart does not pump blood effectively. Treatment of severe mitral regurgitation involves surgical replacement of the valve. Mitral valve prolapse is more common in women than in men. However, when MVP does occur in men, it tends to be more severe than in women.

Why did the researchers do this particular study?

To compare the characteristics and outcomes of MVP in men and women.

Who was studied?

The researchers studied 4461 women and 3768 men in whom MVP was diagnosed on an echocardiogram obtained for some other reason between 1989 and 1998.

How was the study done?

The researchers compared features of MVP and used medical and death records to collect information about what happened to the men and women over time.

What did the researchers find?

When the researchers examined the features of MVP on the echocardiograms, they found that, compared with men, women generally had different and usually less severe valve abnormalities. Among patients with no or mild mitral regurgitation, women lived longer than men did, but among men and women who had severe mitral regurgitation, survival was better for men than for women. They also found that, among people with severe mitral regurgitation, men were more likely than women to have surgery. However, men and women who had surgery had similar survival.

What were the limitations of the study?

The study involved only 1 clinic, and the types of patients and the type of care received for MVP may be different in other places. The researchers did not have information on why women with severe mitral regurgitation did not have surgery as frequently as men did.

What are the implications of the study?

There are sex-based differences in the severity, outcomes, and treatment of MVP in men and women. Further research is needed to understand the reasons for these differences.

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