Understanding Mitral Valve Prolapse (MVP)

Mitral Valve Prolapse (MVP) is a common condition that affects 3-4% of the population and can occur in women and men. In the past it was thought to be the most common heart valve abnormality, and mitral valve prolapse was thought to have affected 5-20% of the general population with women being the majority. It was also over diagnosed for a variety of reasons. The criteria on echocardiography (ultrasound of the heart) was not as stringent as it is today. Diagnosis of MVP has certainly evolved over the past 10 years.

The heart has 4 valves to help control blood flow. The mitral valve opens and closes to control blood flow between the heart’s left atrium and the left ventricle. Clean oxygenated blood from the lungs flows into the left atrium and goes through the mitral valve. The mitral valve is composed of 2 leaflets attached to the heart, which are opened and closed by muscles (papillary muscles) connected to the heart. The muscles and the leaflets are connected to each other by chordae, which are like strings. An abnormality in this apparatus can cause one or both leaflets to prolapse back into the left atrium during the time when the valve is supposed to be closed. When this happens blood can go backwards into the left atrium instead of leaving the left ventricle to go to the rest of the body.

The valve still works well, and the heart pumps normally. Prolapse does not cause damage to the heart over time in most people. Only 2% of people have other structural heart problems along with mitral valve prolapse.

Mitral Valve Prolapse Causes
- For most people, the cause for mitral valve prolapse is unknown. Some people may inherit the condition who may have conditions that have association with MVP. These can include Marfan syndrome, Ehlers-Danlos syndrome, adult polycystic kidney disease, Ebstein’s anomaly, and curvature of the spine (scoliosis).

MVP tends to be over diagnosed for a variety of reasons. The criteria on echocardiography was not as stringent as it is today. Diagnosis of MVP has certainly evolved over the past 10 years.

The symptoms can be very non-specific and be related to a variety of conditions. A thorough History and Physical is crucial in making the diagnosis. A thorough echocardiogram performed by an experienced technologist and cardiologist should be done to evaluate for other etiologies of the patient’s symptoms. The patient should not have MVP until a thorough evaluation is done. Sometimes a patient may be asked to have an echocardiogram done for further evaluation. This test is the standard of care to make the diagnosis. With this 30 minute test the entire heart can be evaluated including the overall function of the heart as well as the valves. The American Society of Echocardiography has made criteria for the diagnosis of MVP. It is very important for patients to have a thorough test done in an accredited laboratory by certified technicians. MVP tends to be over diagnosed and the echocardiogram study is critical in making the correct diagnosis. If the patient has a false diagnosis of MVP another condition which could be responsible for the patient’s symptoms could be missed.

Treatment
Mitral Valve Prolapse usually requires no specific treatment, except reassurance, since most people do not have serious underlying heart disease. Care should be focused on preventing the symptoms. There usually are no restrictions on activity or diet. Caffeine and alcohol intake should be limited in people who have palpitations. Dehydration should be avoided. Most patients no longer need antibiotic prophylaxis but they should consult with a doctor to discuss their individual situation.

In conclusion, the diagnosis of MVP has certainly evolved over the past 10 years. The symptoms can be very non-specific and be related to a variety of conditions. A thorough History and Physical is crucial in making the diagnosis. A thorough echocardiogram performed by an experienced technologist and subsequently interpreted by a cardiologist is crucial. Patients should consult with a physician for further treatment if they suspect this condition.

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