

1. What is a reasonable frequency and followup echocardiogram in patients with mitral valve prolapse?

Question submitted by Dr. Warren D. Murschell, Toronto, Ontario

Mitral valve prolapse (MVP) is a fairly common clinical condition, occurring in 2.4% of the general population without significant gender difference.¹ While most patients have a benign prognosis, progressive mitral regurgitation can occur. Antibiotic prophylaxis for infective endocarditis prevention is recommended during procedures associated with bacteremia for patients with a definite MVP.

While a careful physical examination remains the principle method of diagnosis, two-dimensional echocardiogram and Doppler are the most useful non-invasive tests to delineate the extent of prolapse, quantify the degree of mitral regurgitation and other important clinical parameters.

Asymptomatic patients with MVP, without significant mitral regurgitation, can be evaluated clinically every three to five years.

Serial echocardiograms are unnecessary unless a patient develops cardiac symptoms or physical examination suggests the development of significant mitral regurgitation. Patients with moderate to severe mitral regurgitation and normal left ventricle (LV) size and function should be followed on a yearly basis.

For patients with severe mitral regurgitation, dilated LV (LV end-systolic dimension > 40 mm) and impaired LV systolic function (LVEF < 65%) should be followed every six months.

Indications for mitral valve surgery are similar to patients with mitral regurgitation due to other causes. Many MVPs can be repaired with good success rate and fewer adverse outcomes than valve replacement, particularly when the posterior leaflet is primarily involved.

References

1. Freed LA, Levy D, Levine RA, et al: Prevalence and clinical outcome of mitral valve prolapse. *N Engl J Med* 1999; 341(1):1-7.

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2. Why do patients who quit smoking often gain weight? What do you recommend to lessen this effect?


Question submitted by Dr. Dominique Lejeune, Quebec City, Quebec

The fear of weight gain, especially for women, is a major reason people fail to quit smoking. It must be overcome; cigarettes are the leading preventable cause of death—particularly from heart disease—in Canada.

Smoking increases platelet adhesiveness and fibrinogen levels predisposing to coronary thrombosis. It reduces low density lipoprotein (LDL) cholesterol and oxidizes LDL, enhancing its entry into the arterial wall. It also causes endothelial dysfunction reducing coronary blood flow reserve. Although it takes 10 years for the lung cancer risk to fall after smoking cessation, the good news is that the coronary event risk returns to normal within two to three years.

Increased food consumption accounts for only a part of the weight gain. Nicotine increases body metabolism and energy expenditure, and suppresses appetite. Smokers gain an average of 5 kg following cessation—occasionally much more.

Counselling, drug therapy, and exercise diminish the weight gain. Counselling alone, by either a physician or in therapy groups, has a 10% success rate. This increases to 20% to 40% when combined with nicotine replacement. Gum seems to be the most effective method of nicotine replacement, perhaps because of an oral gratification effect. An antidepressant may be added. Unfortunately, weight gain typically resumes once the drugs are stopped.

My most important recommendation is a dynamic exercise program (*i.e.*, walking, running, swimming, bicycling, or rowing) at least 30 minutes/day. Regular exercise not only has added cardiovascular benefits, but it also boosts a sense of well-being. 

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