

Author's Reply

Low prevalence of mitral valve prolapse in a population-based epidemiologic study

Dear Editor,

I would like to thank our colleague for their interest in our investigation¹. The diagnosis of MVP occurred with a prevalence ranging from 5% to 15% in the early days of two-dimensional echocardiography². It is showed that mitral annulus was in fact saddle shaped with using three-dimensional echocardiographic imaging³. This mitral geometry creates the possibility that, the leaflets can appear to "break" the annular plane that's why prolapse appears when in reality they are normal^{2,3}. Echocardiographic MVP has since been defined as single leaflet or bileaflet prolapse of at least 2 mm beyond the longaxis annular plane, with or without mitral leaflet thickening³. Prolapse with thickening of the leaflets > 5 mm is called classic prolapse, whereas prolapse with lesser degrees of leaflet thickening is regarded as nonclassic prolapse³. Mitral leaflet thickening is associated with a higher risk of complications including sudden death, infective endocarditis, or cerebral embolic events⁴. Previously, we found no correlation between ventricular arrhythmias and thickness of mitral leaflets⁵.

We found that the echocardiographic prevalence of MVP was 0.36% and no major adverse events occurred in 8 subjects with MVP during the follow-up of 36 months¹. Previous studies have been limited by the use of hospital based or selected referral samples. Our results are based on a large population-based epidemiologic study. Additionally, we said that these results might apply only to that specific region or ethnical group; they suggest a possible overestimation of the real prevalence of mitral prolapsed¹.

We measured the thickness of the mitral leaflets. We planned to use these measurements for the categorization (classic and non classic MVP) and comparison of major adverse events. But, only 8 subjects had prolapse of mitral valve leaflets in our study. We thought there was no need to classified MVP or create a subgroup due to the small number of cases.

By means of this letter; 5 subjects had classic MVP, 3 had nonclassic MVP and mean thickness of anterior leaflet 5.2 ± 1.4 mm and mean thickness of posterior leaflet 5.4 ± 1.4 mm in MVP patients in our study.

Conflict of Interest

The Authors declare that they have no conflict of interests.

References

- 1) TURKER Y, TURKER Y, BALTACI D, BASAR C, AKKAYA M, OZHAN H. The prevalence and clinical characteristics of mitral valve prolapse in a large population-based epidemiologic study: the MELEN study. *Eur Rev Med Pharmacol Sci* 2015; 19: 2208-2212.
- 2) DELLING FN, VASAN RS. Epidemiology and pathophysiology of mitral valve prolapse: new insights into disease progression, genetics, and molecular basis. *Circulation* 2014; 129: 2158-2170.
- 3) LEVINE RA, STATHOGIANNIS E, NEWELL JB, HARRIGAN P, WEYMAN AE. Reconsideration of echocardiographic standards for mitral valve prolapse: lack of association between leaflet displacement isolated to the apical four chamber view and independent echocardiographic evidence of abnormality. *J Am Coll Cardiol* 1988; 11: 1010-1019.
- 4) NISHIMURA RA, McGOON MD, SHUB C, MILLER FA JR, ILSTRUP DM, TAJIK AJ. Echocardiographically documented mitral-valve prolapse. Long-term follow-up of 237 patients. *N Engl J Med* 1985; 313: 1305-1309.
- 5) TURKER Y, OZAYDIN M, ACAR G, OZGUL M, HOSCAN Y, VAROL E, DOGAN A, ERDOGAN D, YUCEL H. Predictors of ventricular arrhythmias in patients with mitral valve prolapse. *Int J Cardiovasc Imaging* 2010; 26: 139-145.

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