Summary

Mitral valve prolapse is a common but highly variable clinical syndrome resulting from diverse pathologic mechanisms of the mitral apparatus.

MVP has been systematically over-diagnosed for many years, in some studies up to 35% of the general population, when using strict diagnostic criteria, MVP is seen only in 2% of the population.

The diagnosis of MVP should weight information from the history, physical signs either auscultatory or non auscultatory, electrocardiogram, chest roentgenogram, and echocardiogram with Doppler interrogation and color flow imaging.

This study has been conducted with 50 patients previously diagnosed as having mitral valve prolapse.

Palpitation 42% and chest pain 42% were the most common complain, while 28% of patients were asymptomatic.

Chest x-ray was done for every patient, and thoracic bony deformities were prevalent in 14% of patients.

By auscultation of the patients 12% had a mid-systolic click and 28% had a mid-systolic click and a late systolic murmur, 60% of patients neither had click nor murmur.

Resting ECG in this study revealed a low prevalence of abnormalities, but 20% of patients had abnormalities in their resting ECG.

Echocardiography was done to every case, prolapse was seen in 72% of patients, 12% of them had marked degree, 40% had moderate degree, and only 20% had mild degree.

Mean leaflet displacement was 2.22mm $\pm$ 2.09mm.

Isolated posterior mitral leaflet involvement was found in 20% and anterior mitral leaflet involvement was in 32% of the patients, but the only 20%of the patients had both leaflets involvement.

Mitral regurgitation was detected in 36% of patients by echoDoppler and color flow imaging (CFI).

According to the diagnostic criteria of MVP which applied to the fifty patients, actual diagnosed group was (18%) which met major criteria while (82%) were over-diagnosed group, (22%) of them met minor criteria and (32%) met non-specific criteria and (28%) were false positive diagnosed.

Asymptomatic patients were more common in the over-diagnosed group (34%). Symptoms were more frequent in the actual diagnosed group. Palpitation (78%), chest pain (67%), dizziness (33%), syncope (22%) and anxiety (33%).

By auscultation of the patients, neither click nor-murmur was in (73%) in the over-diagnosed group while mid-systolic clicks and late systolic murmur were in (78%) in the actual diagnosed group.

Normal chest x-ray was in (93%) in the over-diagnosed group and abnormalities were more in the diagnosed group (44%).

Resting ECG was normal in (83%) in the over-diagnosed group and abnormalities were more in the diagnosed group (33%).

The actual diagnosed group show marked leaflet displacement (Mean 5.44 $\pm$ 1.44 mm) and leaflet thickness (33%), while normal leaflets was in (100%) in the over-diagnosed group.

With echo Doppler, mitral flow was normal in (73%) of patients in the over-diagnosed group, while in the actual diagnosed group mitral regurgitation were more common, moderate and sever degree were found only in the actual diagnosed group (22%) , (11%) respectively.

Conclusions

There is over-diagnosis in MVP; this may be caused by 2 major problems; widely differing diagnostic criteria for MVP and the lack of reliability of the diagnosis.

Strict adherence for criteria for diagnosis of MVP should be applied to overcome the artifactual error caused by the technical factors (angulated non-corrected parasternal long-axis view).

We apply standard guidelines clinical and echocardiographic criteria in 50 patients previously diagnosed as mitral valve prolapse, only 18% of them (9 patients) were actually diagnosed as MVP and 82% (41 patients) were over-diagnosed.