

Natural History & Relative Distribution of Different Valvular Heart Diseases in Mayo Hospital, Lahore

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Clinically the common causes of valvular heart lesions are congenital, rheumatic fever and calcification. There are conflicting reports regarding their prevalence. So to study the prevalence and to see the age and sex-wise distribution of various cardiac valvular abnormalities a study was designed at Mayo Hospital, Lahore. It was observed that the most common problem was mitral valvular lesion presenting with palpitations and the age group most affected was 21-40 years with female preponderance. It was suggested that the young population (21-40 years) should get a regular cardiac check up.

Key words: Mitral regurgitation (MR), tricuspid regurgitation (TR), aortic regurgitation (AR), mitral stenosis (MS)

Clinically the most common causes of valvular heart diseases are congenital malformation, rheumatic fever and calcification of the valves in elderly. Inequality in the cusp size also plays an important role in the pathogenesis of the disease¹. Regarding prevalence of valvular lesions there are conflicting reports^{2,3}. The patients present with anxiety, atypical chest pain that is related to exertion and syncope³.

Aims and objectives

1. To know relative distribution of valvular heart disease and see the symptoms.
2. To know the age and sex wise distribution of the disease.
3. To point out the important risk factors which play an important role in the pathogenesis of the disease.
4. To study the relationship of the disease to other factors.
5. To find out the results of the study and compare them with other research work.

Subject & methods

This was a retrospective study carried out in the Department of Cardiology, Mayo Hospital, Lahore over a period of two months. Fifty two subjects were included in the study. We excluded those patients from our study who were admitted, suspecting them to be suffering from valvular disease but later, the investigations failed to confirm it.

The study pattern was as follows:

Taking the case history of the patients, general physical examination, which included the sign such as breathlessness, syncope, palpitation etc.

Visible signs such as chorea, subcutaneous nodules, fever, joint pain were also observed.

The lab tests included ESR measurement, Hb, ASO, urine etc., based on the tests a provisional diagnosis was made which the ECG, 2-D echo and colour doppler facilitation later on confirmed.

Results

Out of 52 cases 36 were male and 16 females. The maximum cases were in age group 21-40 years (20-30) in which males were 60% & females 40%..

Table 1. Gender and age distribution of patients

Age Groups	Total	Male	%age	Female	%age
0-20 Yrs.	10	9	90	1	10
21-40 Yrs	30	18	60	12	40
41-60 Yrs.	12	9	75	3	25
Total	52	36		16	

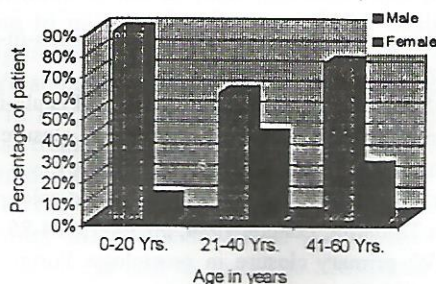


Fig. 1. Gender and age distribution of patients

The most common complaint was palpitations (86.5%) followed by chest pain (83.4%) breathlessness (83%) fever (56%), syncope (52%) and joint pain (24%).

Table 2. Presenting complaints

Complaint	Present	Absent
Palpitation	86.5%	13.5%
Chest pain	83.4%	16.6%
Breathlessness	83%	17%
Prolonged fever	56%	44%
Syncope	52%	48%
Joint pain	24%	26%

Mitral stenosis was diagnosed in 12 cases (male 75% & female 25%), mitral regurgitation (n=7, in 57% females & 43% males) and other diseases diagnosed were aortic stenosis (n=4), aortic regurgitation and tricuspid regurgitation.

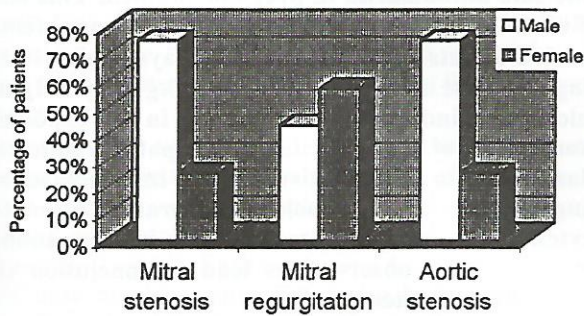


Fig. 2. Distribution of cardiac problems in two different genders.

Discussion

The study conducted on the patients suffering from valvular heart diseases in the Mayo Hospital, Lahore clearly points out the greater frequency of the disease.

It is said that mitral valve prolapse is a predominantly inherited condition⁴, which is further supported by high prevalence of mitral valve prolapses in patients of congenitally acquired connective tissue disorders⁵. In an echocardiographic study of 1734 new borns, not a single case of mitral valve prolapse was found⁶. Maximum number of our cases were in age group 21-40 years, which is in accordance with other studies in which mean age was found to be 30 years. Mitral valvular lesion is found to be more common in females 57% as compared to males 43% similar result are shown by Chengt To⁷. Our study showed that in our patients, 46% had mitral stenosis, 35% had mitral regurgitation, 10% had aortic regurgitation while the rest had either a combination of these or a multi-level obstruction. When examined across different age groups, the prevalence of the MR and TR, of more than mild severity, increased with advancing age in both sexes.

The most common presenting complaint in our study was palpitations (86.5%) which is in accordance with a study of Suhail N et al⁸. While in some other studies the common presentation is panic disorders and depression⁹. Coming to socioeconomic aspect of the valvular disease, which we came across in the course of our study, it has to be said that the treatment of the disease is quite costly. Most of the patients, who were already in the advanced stage of the disease, were still denied treatment because of their poor economic background. Our observation was that

a great deal of improvement was required and was possible as well.

Conclusion

Our research concluded that Mitral stenosis is the most common valvular heart disease observed in our study with mitral regurgitation and aortic stenosis to follow.

The important factors contributing to it are either congenitally malformed valves, rheumatic arthritis or mechanical injury, calcification of valves due to hypercholesterolemia etc.

At presentation, the most commonly seen signs and symptoms were anxiety, dyspnoea and palpitation.

The most affected age group was 21-40 years.

Suggestions

There was a low rate of success in the treatment of valvular disease because of the severity of the disease at presentation. Early diagnosis was rarely seen and most of the patients were in the advanced stage of the disease, so awareness of medical check up should be aroused among the citizens. Lack of facilities and of funding by the government is an important factor contributing to a lower success rate in the treatment so more help from the government can improve the conditions.

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