MITRAL VALVE PROLAPSE SYNDROME AND ITS ASSOCIATION WITH ANXIETY AND PANIC STATES

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SUMMARY

Mitral Valve Prolapse Syndrome is one of the most frequent cardiac valvular abnormalities in general population. Mostly the patients remain asymptomatic but a few may suffer from hyperadrenergic panic states, similar to anxiety attacks. In psychiatric practice, a number of physicians have come across this finding during the recent past. Present article deals with two such case illustrations.

Mitral valve Prolapse Syndrome (MVPS) is one of the most frequent cardiac valvular abnormalities affecting as much as 5-10 per cent population (Braunwald, 1980). Majority of these subjects remain asymptomatic but a few suffer from a variety of non-specific cardiac symptoms. These symptoms include hyperadrenergic panic like states, palpitations, hyperhidrosis and chest pain, which sometimes simulate anginal attacks. Midsystolic clicks or late systolic murmur in mitral area, ST and T wave changes along with a variety of atrial or ventricular arrhythmias in electrocardiogram (EGG) and characteristic echocardiographic (Echo) changes are diagnostic objective findings (Gaffray et al., 1979). Since the symptoms and signs are quite akin to anxiety or panic state attacks, the associations of these two conditions are highlighted in current literature (Boudoulas et al., 1979 and 1980; Pariser et al., 1978 and 1979; Kantor et al., 1980 and Mehta and Mehta, 1978). Recently we came across two such patients who presented with features of hyperadrenergic panic states and on investigations they revealed MVPS.

CASE REPORT

I. S. M., single, male, 21 yrs old, a well motivated soldier with five years service, while on leave at home had suffered from repeated episodes of tremulousness, feeling of light headedness and impending death, profuse sweating and palpitations. Each attack lasted for 15 to 20 minutes. He was brought by his brother to the emergency department at midnight in an acute condition. The casualty medical officer had noted that the patient was shivering and sweating profusely. During the examination only, the patient had suffered from an episode of panic state. Pulse was 120 p.m. and B.P. 110/72 mm Hg. No other significant objective finding was recorded. Routine laboratory tests for blood and urine did not reveal any abnormality. Patient was admitted to neurological ward for observation and investigations of ‘fainting attacks’. During the next three days he had suffered from four episodes of panic states of diminishing intensity. EEG was within normal limits. Patient was referred for psychiatric evaluation. Details of history was taken, spread over a couple of interviews. Patient gave history of having such episodes during childhood, from the age of eight years and they were treated by village faith healers. He had remained asymptomatic for more than ten years. Patient also said that he was morbidly afraid of railway journey and the very thought of it (for his return to place of work) made him very tense. Examination of the heart revealed a late systolic murmur of grade III intensity, best heard over mitral...
area and without any conduction outwards. While the patient was on psychotherapy schedule along with anxiolytic drugs in support, he was referred to the cardiothoracic centre for evaluation of his cardiovascular system (CVS). Cardiologist confirmed the clinical findings and based on the evidence of Echo findings gave a diagnosis of MVPS.

2. A. R., 23, a sailor, unmarried, with seven years of service to his credit and well motivated, had been hospitalised with complaints of episodic dizziness of one year's duration. He stated that these episodes appeared when he was walking on a busy road or face any senior officer. Along with dizziness he used to perspire profusely from hands and feet and his whole body would tremble. He used to feel as if he was going to collapse. The symptoms subsided after he took rest for fifteen minutes or so. He had suffered from such episodes two/three times in a month. He had never been unconscious or injured by a fall, neither had he ever vomited during these attacks. Initially he was investigated in the ENT department. Investigations included audiometry and Caloric tests. No ENT abnormality was detected. He was also investigated neurologically. Fundoscopy, X-ray skull and EEG did not show any abnormality. Presence of a mid-systolic murmur in mitral area called for a cardiological check up. A non-ejection click over the apex and a mid-systolic murmur without conduction were confirmed. ECG showed inversion of T wave which disappeared on exercise in lead III. Treadmill exercise test was within normal limits. Echo revealed a very brief mid-systolic prolapse of the mitral valve. Left ventricular function was excellent and there was no conductive dysfunction. A diagnosis of MVPS was made but the cardiologist opined that the patient was in need of psychiatric management rather than cardiac. Mental status examination did not reveal any gross abnormality except some apprehension and tension at the time of interview. Details of history were taken but no significant fact was unearthed. Patient had shown considerable improvement with psychotherapy in a month's time.

DISCUSSION

The anatomical defect in MVPS is a redundance of myxomatous connective tissue of the mitral valve, mainly of posterior leaflet. The tissue billows or prolapses into the left atrium during systole. Sometimes this defect is associated with other disorders like Marfan's syndrome, Turner's Syndrome and Ischaemic heart disease. Clinical presentation of this condition is diverse and occur at all ages and both sexes. Anxiety and hyperadrenergic states frequently occur in these patients. The association between anxiety and MVPS has been noted by many physicians. Parisor et al. (1979) found MVPS in eight out of seventeen patients suffering from anxiety attacks. They also noted certain similarities in the epidemiology of these two conditions, viz. prevalence of 5-10 per cent of population, onset before the age of thirty-five, preponderance of females and tendency to run in families. The exact relationship of the organic defect and the anxiety features still remains only a conjecture. Metabolic abnormalities, consequent or associated, leading to hyperdynamic circulation have been suggested by Boudoulas and Mezzaferri (1980) on the basis of their findings of high catecholamine concentration in urine.

It appears that present day concept of MVPS will possibly account for many of the diagnostic exercises of yester years viz. Dacosta syndrome & Soldier's heart of World War vintage and Neorocirculatory asthenia, Effort syndrome and Systolic gallop sounds of past decades (Wolley 1976, Boudoulas et al., 1980).

CONCLUSION

There are several causative factors to
account for the symptoms of the panic states. We suggest that MVPS should also be considered a common cause and recommend that a detailed cardiological evaluation is a necessary investigation in patients of panic states, keeping this in view.

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