

PSYCHIATRIC MORBIDITY AMONG PATIENTS ATTENDING CARDIAC OPD

ASHOK GOYAL, M.M. BHOJAK, K.K. VERMA, ASHOK SINGHAL, O.P. JHIRWAL & MANEESH BHOJAK

ABSTRACT

One hundred patients were selected from the cardiology outpatient department by non-probability purposive method. Each patient was evaluated by a psychiatrist and a consultant cardiologist. The informations were recorded in a self designed proforma. The Hindi version of Goldberg's General Health Questionnaire and modified adjective check list for type A and type B personality characteristics were administered. Seventy five percent of the patients were having psychiatric problems. The cardiac patients were having psychiatric problems. The cardiac patients were having predominantly type A personality characteristics. Panic disorder was the predominant diagnosis in the psychiatric patients and depression was the main diagnosis in cardiac patients. These patients presented with complaints of chest pain, palpitation, ghabarahaat, weakness, increased sweating, hot and cold flushes, choking, breathlessness, decreased appetite. etc. in cardiac OPD.

Key Words: Cardiac outpatients, Psychiatric morbidity, Panic disorder, Depression, Type A behaviour.

Although the links between psychological and cardiac functions remain a matter of ongoing investigations, many of the gaps in scientific knowledge are beginning to be filled. William Harvey's declaration of over 300 years ago continues to be valid clinical wisdom for physician of this day. "Every affection of the mind that is attended with either pain or pleasure, hope or fear is the cause of an agitation, whose influence extends to the heart" (Kaplan and Sadock, 1998).

Cardiovascular symptoms and anxiety have always been closely related. In fact, this relationship has had a long interesting history under the different names of "irritable heart", 'effort syndrome' and 'neurocirculatory asthenia' (Chignon et al., 1993). Chest pain is reported commonly in all surveys of general population and of patients in ambulatory care (Shepherd et al., 1956). Despite this, it is common for physicians, to investigate patients with chest pain and not able to detect relevant organic pathology.

Keeping this in view a study was carried

out in cardiac OPD, PBM Hospital Bikaner, by Department of Psychiatry, S. P. Medical College Bikaner with following aims and objectives.

1. To find out psychiatric morbidity in patients attending cardiac OPD.
2. To study the phenomenology of patients having psychomorbidity.
3. To assess the personality characteristics of these patients.
4. To find out the linkage or association between sociodemographic variables and psychiatric morbidity.

MATERIAL AND METHOD

For this study 100 patients were selected by non-probability purposive method from cardiology OPD. Every patient included in the study was examined and investigated by cardiologist, after physical examination, each patient was evaluated by administering following 1. A self designed semi structured proforma

TABLE 1
TABLE SHOWING SOCIODEMOGRAPHIC VARIABLES
(n=100)

AGE(Yrs)	Group I (n=25)	Group II (n=21)	Group III (n=54)
Mean	51.84	41.43	45.43
SD	12.62	12.62	13.87
Gr.I vs Gr.II	t=2.78	df=44	P<0.007
Gr.I vs Gr.III	t=1.96	df=77	P<0.05
Gr.II vs Gr.III	t=1.14	df=73	N.S.
SEX			
Male	19(76)	10(47.61)	34(62.96)
Female	06(24)	11(52.39)	20(37.04)
MARITAL STATUS			
Married	23(92)	18(85.71)	48(88.89)
Unmarried	01(04)	01(04.77)	04(07.41)
Widows	01(04)	02(09.52)	02(03.70)
DOMICILE			
Urban	21(84)	16(76.19)	40(74.07)
Rural	04(16)	05(23.81)	14(25.93)
EDUCATION			
Illiterate	10(40)	04(19.04)	12(22.23)
Primary	02(08)	03(14.29)	12(22.23)
Middle	01(04)	05(23.81)	05(09.25)
Sec/H.Sec/Inter	04(20)	05(23.81)	12(22.23)
UG	04(16)	03(14.29)	07(12.96)
PG	00(00)	00(00.00)	05(09.25)
Professional	04(16)	01(04.76)	01(1.85)
INCOME			
<3000	09(36)	07(33.33)	16(29.63)
3001-6000	08(32)	10(47.62)	19(35.18)
6001-9000	03(12)	00(00)	10(18.52)
>9000	05(20)	04(19.05)	09(16.67)
OCCUPATION			
Professional	03(12)	01(04.76)	05(09.25)
Semi-profession	03(12)	00(00)	09(16.67)
Clerical/	07(28)	04(19.04)	06(11.11)
Shop owner			
Skilled worker	07(28)	10(47.62)	20(37.04)
Semi skilled	01(04)	03(14.29)	05(09.25)
Unskilled	03(12)	02(09.53)	06(11.11)
Unemployed	01(04)	01(04.76)	03(05.57)

Figures in parenthesis indicate percentage

containing sociodemographic details, details of present illness, past history and family history of psychiatric illness etc.

2. Modified adjective check list for type A and type B personality characteristics (Herman *et al.*, 1981).

3. Hindi version of Goldberg's general health questionnaire (Gautam *et al.*, 1987).

All the patients who scored more than 12 on GHQ were subjected to mental status examination and

the diagnosis was made according to ICD-10 (WHO, 1992) and was confirmed independently by two psychiatrists separately.

Exclusion Criteria: Patients less than 16 years, severely ill patients whose psychiatric evaluation was difficult and patients referred from other departments for expert cardiac opinion were excluded from the study.

RESULTS

On the basis of presence or absence of psychiatric morbidity, patients were divided in 3 groups.

Group I: Purely cardiac patients (no psychiatric illness)

Group II: Exclusively psychiatric patients (No cardiac illness)

Group III: Comorbid: Both cardiac and psychiatric illnesses were coexisting.

There were 25, 21 and 54 patients in Gr1, Gr2, and Gr3, respectively.

The majority of the patients were elderly in group I (pure cardiac) and group III (comorbid group) rather than group II (pure psychiatric). There was no significant difference was observed in three groups in relation to sex, marital status, domicile, education, income and occupation (Table 1).

Out of 100 patients of cardiac OPD, 29 patients were suffering from depression followed by 18 patients of panic disorder. Among pure psychiatric patients panic disorder was most frequent diagnosis (38.10 percent), followed by depression (19.05 percent), generalized anxiety disorder, dysthymia and mixed anxiety depressive disorder etc. (Table 2).

Table 3 shows the frequency and distribution of various symptom which were reported by the patients, chest pain was the most common (67%) symptom. Ghabrahat, palpitation, decreased sleep, decreased libido, weakness, lack of interest, easy fatigability, sadness of mood, choking, breathlessness, hot and cold flushes, decreased appetite were common complaints of the patients.

It was clearly evident that type A behaviour pattern was significantly more in cardiac patients

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TABLE 2
DISTRIBUTION OF PATIENTS ACCORDING TO ICD-10
DIAGNOSIS(n=100)

ICD-10 Diagnosis	Group I (Cardiac Patients) (n=25)	Group II (Psychiatric Patients) (n=21)	Group III (Cardiac Patients with Psychiatric illness) (n=54)	Total
Depression	0	04(19.05%)	25(46.29%)	29(38.67%)
Panic Disorder	0	08(38.10%)	10(18.50%)	18(24.00%)
Generalized Anxiety Disorder (GAD)	0	03(14.29%)	11(20.37%)	14(18.67%)
Mix. Anxiety Dep Dis.	0	01(04.76%)	03(05.56%)	4(5.33%)
Agoraphobia with Panic Disorder	0	01(04.76%)	02(3.70%)	3(4.00%)
Dysthymia	0	02(09.52%)	03(5.57%)	5(6.67%)
Somatization Disorder	0	02(09.52%)	00(0%)	2(2.67%)
No Psychiatric illness	25	0(0%)	0(0%)	25(100%)

TABLE 3
DISTRIBUTION OF PATIENTS ACCORDING TO SYMPTOMS PRESENTATION(n=100)

SYMPTOMS	Group I Cardiac Patients Patients (n=25)%	Group II Psychiatric (n=21)%	Group III Cardiac Patients with psychiatric illness (n=54) %	Total (n=100)	X ²	p
Chest pain	16(64)	13(61.90)	38(70.37%)	67	0.625	>0.731
Ghabrahat	11(44)	15(71.42)	40(74.07)	66	7.23	<0.026
Weakness	08(32)	16(76.19)	38(37.37)	62	12.95	<0.0015
Decrease sexual drive	04(16)	15(71.42)	40(74.07)	60	25.52	<0.0001
Palpitation	09(36)	15(71.42)	35(64.81)	59	7.56	<0.22
Hot & Cold Flashes	04(16)	17(80.95)	35(64.81)	56	23.24	<0.0001
Decrease sleep	11(44)	10(47.61)	33(61.11)	54	2.44	>0.2952
Excessive worry	04(16)	15(71.42)	29(53.70)	48	15.57	<0.0004
Sad mood	00(00)	11(52.38)	31(57.40)	42	24.29	<0.0001
Easy fatiguability	02(08)	08(38.09)	32(59.25)	42	18.59	<0.0001
Lack of interest	00(00)	11(52.38)	31(57.40)	42	24.29	<0.0001
Decrease appetite	04(16)	09(42.85)	26(48.14)	39	7.59	<0.022
Blurring of vision	02(08)	15(71.42)	18(33.33)	35	20.32	<0.0001
Increase sweating	05(20)	09(42.85)	15(27.77)	29	2.981	>0.2252
Breathlessness	07(28)	05(23.81)	16(29.62)	28	0.254	>0.8807
Apprehension about chest	00(00)	10(47.61)	16(29.62)	26	14.25	<0.0008
Choking	00(00)	05(23.81)	19(35.18)	24	11.59	<0.003
Hoplessness	00(00)	08(38.09)	15(27.77)	23	10.86	<0.0043
Dizziness	00(00)	05(23.81)	12(22.22)	17	6.85	<0.0325
Worthlessness	00(00)	04(19.05)	11(20.37)	15	5.90	>0.523
Suicidal Idea	00(00)	05(23.81)	10(18.51)	15	6.21	<0.0448

in comparison to psychiatric patients ($X^2=4.54, p<0.0331$). Similarly type A behaviour pattern was significantly more common in comorbid group than psychiatric patients ($X^2=3.83, p<0.05$). No such statistical difference in type A behaviour pattern among pure cardiac patients and comorbid psychiatric patients was noticed. ($X^2=0.2745, p=6.600$) (Table 4).

TABEL 4
DISTRIBUTION OF PATIENTS ACCORDING TO ACL TYPE A AND OTHER BEHAVIOUR PATTERN.

ACL type Behaviour score	Group I (n=25)	Group II (n=21)	Group III (n=54)
Type A (39 and more)	15(60%)	06(28.57%)	29(53.70%)
Type X(32-38)	04(16%)	04(19.04%)	15(27.78%)
Type B(<32)	06(24%)	11(52.39%)	10(18.52%)

DISCUSSION

The results of present study indicated very high prevalence (75%) of diagnosable psychiatric morbidity. Depression was most common (38.67%) diagnosis but panic disorder was the main diagnosis (38.10%) among pure psychiatric patients. 21 percent of the patients were not having any organic pathology and presented to cardiology because of their visceral (cardiac) symptoms eg. chest pain, palpitation, increased sweating, hot and cold flushes, weakness, choking, breathlessness, easy fatigability and decreased libido. Various authors have also reported in their studies (Katon *et al.*, 1988, Katon *et al.*, 1990, Bas, 1991, Roll *et al.*, 1991, Chignon, 1993) that patients consult to medical or cardiac departments because of their various physical symptoms. Though it is well established that the anxiety and related disorders presents with physical symptoms but careful evaluation can differentiate between organic and psychiatric symptoms, it means careful examination and knowledge of psychiatry among cardiologists and physicians can reduce the burden of unnecessary investigations as well as can improve the quality of the life of the patients.

A relationship between type A behaviour

pattern and incidence of coronary artery disease has been well established in prospective cohort studies (Freidman *et al.*, 1959, Rosenman *et al.*, 1975, Haynes *et al.*, 1980). William *et al.*, (1980) have observed that type A subjects have more tendency to exhibit cardiovascular and neuroendocrinal response to mental work. On the other hand Trivedi & Vipul (1999) have clearly mentioned that role of type A behaviour pattern is still controversial concept, which has generated a debate but the results of our study suggest that type A behaviour patterns were significantly more in cardiac patients, indicating that time urgency, excessive competitiveness and hostility increase the vulnerability to get cardiac illness.

Study shows sociodemographic variables have no significant role except the panic disorder or other pure psychiatric illnesses were more common among younger age group. Similarly Cohen and White (1951), Wood (1968), Mayou (1973) reported that psychiatric symptom or non cardiac chest pain is more common in younger age group. It suggests that the proper diagnosis and treatment in time of these non cardiac psychiatric disorders can improve the productivity and reduce the suffering of young vulnerable persons.

In conclusion, after reviewing the literature and the result of the present study the authors are of the opinion that though the study has its limitation like small sample size, non probable sample selection of the patients etc., but still we can not ignore the high prevalence of psychiatric morbidity, there is a need to improve the knowledge of psychiatry among cardiologists and other physicians by regular refresher courses in the institutes and also to start public awareness programs on large scale in regular basis all over the country.

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M.M. BHOJAK, M.D. Professor & Head, Department of Psychiatry, K.K. VERMA* M.D. Assistant Professor, Department of Psychiatry, A-2, Hospital Campus, Opposite Cancer Hospital, ASHOK SINGHAL MD DPM, Assistant Professor, Department of Psychiatry, O.P. JHIRWAL, Post Graduate Student, Department of Psychiatry, MANEESH BHOJAK, M.B.B.S Research Scholar, ASHOK GOYAL, Post Graduate Student, Department of Psychiatry, SP Medical College, Bikaner-334003.

* Correspondence