PSYCHOSOCIAL ASPECTS OF DIALYSIS AND RENAL TRANSPLANT

Pages with reference to book, From 99 To 100

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ABSTRACT

Keeping in view our socio cultural millieu, the psychological aspects of twenty renal transplants recipients and equal number of patients on dialysis were studied. Socio psychiatric profile in the dialysis and transplanted patients revealed that the frequency of anxiety, depression and hypochondriasis was significantly less ($P < 0.01$) in the transplanted group. On Bender Gestalt Scale the transplanted group achieved normal status in significantly higher ($P < 0.05$) number compared to the dialysis patients. It was concluded that transplanted patients showed marked improvement in social functioning, psychological symptoms and enduring personality traits compared to patients on maintenance dialysis(JPMA 41: 99, 1991).

INTRODUCTION

Life on dialysis is beset with constant sensation of illness together with limitations in social functioning imposed by thrice a week sessions on the dialysis machine. Procci[1] has demonstrated a high incidence of discontent, social withdrawal and psychological maladjustment in the dialysis population. The patients who undergo renal transplants after being on dialysis therefore face a major change in their life style. In many respects life after receiving a renal transplant is a transformation from chronic illness to near normal existence. Simons et al[2s] have shown an increased sense of well being and better overall functioning in the transplant recipients. With the improvement in surgical technique and better understanding of problems facing the immuno compromised patients, the results of transplantation have improved tremendously. For this reason it is increasingly being accepted that the cost benefit ratio of renal transplantation justifies it as the preferred mode of treatment for end stage renal failure in a developing country[3].

PATIENTS AND METHODS

The patients for the study were collected from the Department of Urology and Transplantation, Civil Hospital and Dow Medical College Karachi between January and June 1988. The department started haemodialysis in 1970 and presently 15,000 dialysis sessions are carried out every year The first kidney transplantation was carried out in November, 1985 and 120 have been performed. The overall patient survival is 83% and graft survival 81% over a five year period. Twenty transplant recipients, who received a living related donor (LRD) kidney transplants were randomly selected for the study. An equal number of subjects, currently on haemodialysis, matched for age, sex, place of residence and duration of illness (between January -June 1988) were studied as controls. A questionnaire on Socio-Psychiatric Profile, an adopted urdu version of Minnesota Multiphasic Personality Inventory (MM PI) [4] as well as the Bender Gestalt (BG) scale comprising of sixty questions related to anxiety, depression, hysteria, hypochondriasis, obsession, paranoia were used as instruments. MMPI is a tool designed to provide multiphasic assessment of psychopathological changes. Adopted version of MMPI consisted of

relevant questions derived from that scale. Questions about anxiety and depression were taken from psychasthenia which shows its strongest relationship with measures of neurotic tendency. On Bender Gestalt, anxiety and neuroticism are demonstrated by variation in size, angulation, curvature and crowding of certain figures[5].

RESULTS

The demographic characteristics (Table I)

TABLE I. General characteristics of dialysis and transplant group.

			Dialysis (n=20)	Transplant (n=20)
Sex	Male		14	15
	Female		6	5
Age	Male Mean:		30 Years (19 - 42)	32 Years (27 - 40)
	Female Mean:		32 Years (20 - 40)	22 Years (18 - 28)
Marital Status				
	Single	M	5	5
		F	1	4
	Married	M	9	9
		F	3	1
	Others	F	2	1
Education				
	Preliterature		3	2
	Primary		5	2
	Secondary		12	16
Family Type				
	Nuclear		10	8
	Joint		10	12
Residence				
	Urban		18	18
	Rural		2	2
Occupation				
	Unskilled		3	5
	Skilled		6	2
	Professional		6	10
	Housework		4	2
	Student		1	1

of the two groups were strikingly similar with respect of mean age, marital status, place and change of residence. The pattern of family types was also comparable. Educational level in the two groups was similar and most of the cases had attained secondary or higher levels of education. The two groups were also matched for period of dialysis, which in the case of transplanted patients implied period of dialysis before receiving the renal allograft. Post-transplant period varied from 6 to 36 months. Comparison of MMPI scales in the two groups showed highly significant values of anxiety, depression

and hypochondriasis in haemodialysis group (Table II).

TABLE II.Comparison of MMPI results in haemodialysis &transplant cases.

Group	Anxiety	Depression	Hysteria	Hypochondriasis	Obsession	Paroneia
Haemodialysis (20)	4.45 ± 0.47	4.1 ± 0.54	2.25 ± 0.33	2.45 ± 0.37	3.20 ± 0.41	1.40 ± 0.46
Transplant (20)	2.45 ± 0.53	1.30 ± 0.50	1.55 ± 0.20	0.70 ± 0.25	3.20 ± 0.52	1.50 ± 0.54
P. value	P < 0.01	P < 0.001	N.S.	P < 0.001	N.S.	N.S.

There was however no significant difference in the frequency of hysteria, obsession and paranoia in the two groups. MMPI scores of less than 5 for anxiety and depression are also not considered significant when seen in individual cases. The frequency of anxiety, depression and hyochondriasis were seen more commonly amongst patients who were undergoing dialysis for six months. Similarly more cases scored high on various MMPI scales during first six months among transplant recipients. This is understandable. The application of Bender Gestalt also confirmed the presence of more neurotic symptoms in the haemodialysis group (Table III).

TABLE III. Bender restalt test results in dialysis and transplant cases.

Group	Normal	Psychoticism	Neuroticism	
			Anxiety	Depression
Haemodialysis (20)	8	1	5	4
Transplant (20)	16	1	3	-
P.Value	P<.0.05	N.S.	N.S.	N.S.

Another striking feature is that higher number of subjects with normal score are seen in transplant group as compared to haemodialysis group. Moreover there was increased incidence of neuroticism amongst those undergoing dialysis for six months. One of the most striking features between the two groups was the difference in functionality. Of the twenty transplant recipients fourteen went back to work and only two had changed their profession. In comparison all haemodialysis patients were not in a position to carry on their profession and continued to be a burden on the family.

DISCUSSION

For majority of patients on haemodialysis normal life remains elusive and unreliable and transplantation marks a beginning of healthier life. However repeated minor complications, changes in appearance secondary to steroids, as well as fear of rejection episodes all serve to remind the recipients that they are not completely normal individuals. Total integration of graft into patients, in the sense of self, takes between six months and a year. Psychological distress, anxiety, depression and hypochondriasis, which are highly associated with each other, were more common in dialysis group as compared to transplant recipients. Anxiety anci depression were also related to period of dialysis in both the groups, being more prevalent in first six months of dialysis. Boldgett[3] indicated that mean incidence of emotional maladjustment in haemodialysis patients was nearly 50%. Levy and Wynbrant[6] reported that 32% of haemodialysis patients had a quality of life which they rated as good. Insignificant presence of psychiatric morbidity in transplant recipients in our series is in conformation with findings

of Simmons[2]. None of the transplant recipients reported change in residence in our study. Maintenance of residence is one of the social variables having productive effect on outcome. As reported by Paroneia Keegan[7], it has a positive in fluence on better adjustment. The same factor may have resulted in better adjustment both at home and at work in our cases. The number of transplant recipients returning to work is remarkably high in this study. Of fourteen recipients who went back to work only two had to change their profession, while the rest resumed with their pre-illness vocations. Charlotte[8] also found that functioning kidney group had a higher incidence of full time employment. Simmons[2] also reports much quicker and more complete return to work in cases who were given living donor transplant. As against this Procci[1] and Keegan[6] cited unemployment as a constant problem in adjustment. It appears that following a successful transplantation from living donor, return to work, maintenance of residence and strong family support have positive influence on transplant adjustment.

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