Problems which Confront Renal Transplant Recipients

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الخلاصة:

الهدف: تهدف الدراسة التعرف على المشكلات التي تُواجهُ مرضى غرس الكلية.

منهجية البحث: أجريت دراسة وصفية في العيادات الخارجية لمتابعة مرضى غرس الكلية في مستشفى الجراحات التخصصية و مستشفى الكرامة التعليمي ومراكز العيادات الخارجية في المستشفيات التعليمية (مدينة الطب ، الكرامة ، اليرموك) المسؤولة عن توزيع الادوية المثبطة للمناعة، بدأت الدراسة مِنْ أول أكتوبر/تشرين لأولِ ، ٢٠٠٦حتى نهاية يوليو/تموزِ ٢٠٠٧ولللانجاز أهدافُ الدراسةِ، أعدت عينة عمدية مكونة من ١٥٠لمريض غرس كلية الذين كانوا يراجعون العيادات الخارجية طبقاً لمواصفات عيّنةِ البحث.

صممت استمارة الاستبانة مكونة من (٨٣) فقرة ولصدق الاداة تم عرضها على (١٤) خبير . تم تحديد ثبات الاداةَ باستخدام الاختبار وأعادة الاختبار معامل بيرسون (٠.٧٦ = r)جمعت المعلوماتُ بواسطة المقابلةِ الشخصية لعينة البحث ، و أستخدام تحليل الاحصاء الوصفي والإستنتاجي.

النتائج: بينت نتائج البحث بأنَّ مرضى غرس الكلية يواجهون (٨٣) مشكلة متاثرين بها في مستويات مختلفة في الشدة تتراوح بين ، عالي و متوسط ومنخفض.

التوصية: طبقاً لنتائج هذه الدراسةِ، أوصدَت الباحثة بضرورة الاشراف على توزيع الادوية وتسهيلِ الوُصُول الى هذه المراكزِ .

Abstract

Objective: The study objectives are to identify the problems which confront renal transplant recipients (RTR$_S$).

Methodology: A descriptive study was carried out at two Teaching Hospitals with kidney transplant centers. Surgical specialties and Al-Karama outpatients, clinics for (RTR$_S$) ,and three Teaching Hospitals; Medical city, Al-Karama and Al-Yermok which were responsible for immunosuppressive drugs distribution .Starting from October ,1st 2006 to the end of July 2007.To achieve the objectives of study, a non-probability (purposive) sample of 150 (RTR$_S$) who were attending to the outpatient clinic of the above listed hospital were selected according to the criteria of the study sample .

The finalized questionnaire contained (83) items. The content validity of the instrument was established through penal of (14) experts.

Reliability of the problems scales was determined by test-retest method which was estimated as average (r=0.76).

Data was gathered by interview technique using the questionnaire format and data was analyzed by application of descriptive and inferential statistical methods.

Results: The results of the study indicated that the (RTR$_S$) confront (83) problems and affected by these problems with different severity level, high, moderate, and low.

Recommendation: According to the results of this study, the researcher recommended that the provision of the necessary post transplant medicines from easy to reach centers.

Key words: End Stage Renal Failure, hemodialysis, peritoneal, cadaver, immunosuppressant.

Introduction

End Stage Renal Failure (ESRD) is the final outcome of many diseases which may attack this important organ which plays a role in various metabolic and physiological processes [1].Excretion of waste products of metabolism, the control of salt, water balance, blood pressure (BP), the regulation of bone metabolism and hemoglobin production. if kidney function is impaired all these body systems are affected. The patient with ESRD is offered two medical options, the first is dialysis (either peritoneal or hemodialysis) the second is kidney transplantation. Although the first is medically easier but it requires lifelong and frequent inpatient procedures and hampers his freedom and affects his work and quality of life. The second is practically more difficult as it entails a major surgical procedure with possible early and late

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surgical complications, a specialized centre with expertise, a tissue and blood matched donor, the donor may be living (related or non related to the recipient) or a cadaver .

The recipient will also need a continuous course of immunosuppressant, a continuous sticking to medical advices regarding medications, diet and follow up etc... In spite of all these requirements, kidney transplants offer a chance of a possible lifelong survival free from hospital ties and thus grant the patient a better quality of life and a better coping with work and income and frees his family from much caring[2].

However a patient with a renal transplant is in continuous need for potent medications to stop rejection by suppressing his immune responses. These medications have their own shortcomings .First of which are their availability, second is their cost, third is the need to know everything about their side effects ,how to prevent and treat them. Given the fact that the second transplant may be more difficult than the first one post procedural and donor points of view, it will be clear that a strict adherence to a comprehensive follow up is highly required[2]. The nurse who is in a more direct contact with patients and being part in the team of patient care [3]. Finds herself in an excellent position to survey, assess and detect early signs and symptoms of expected post transplant complications so that early and expert interventions can be applied to prolong the graft life and consequently enhance the patient's life pattern. The nurse will also be able to detect psychological problems related to the new iatrogenic circumstances imposed on the patient by the transplantation. All over the world the nurse working in medical and surgical centers is seen by patients as a first hand personnel both before and after the operation. She is found to be an easier to access professional than most doctors who are always busy somewhere else and may have much less time to spare for frequent consultations and visits by patients. Her kindness and expertise together with her easy accessibility by patients gives her a unique role in assessing all aspects of patients needs, detecting early consequences of the transplanted kidney as an operation, side effects of the prescribed medications ,advising on the need for early interventions, the need for referring patients to their doctors and counseling both patients and their relatives on a multitude of matters related to nutrition, social life, work, leisure activities and the development of depression only to mention a few points of her role. The nurse will be of a great help to doctors by minimizing their time spent on unnecessary attendances of patients she will be helping patients guard their transplanted kidneys which are too difficult to replace in cases of post operative failure. It is for these reasons that the researcher has prepared this research [2].

Methodology

An exploratory descriptive design was conducted on the outpatients clinics' renal transplant recipients (RTR,s) starting from the 1st Oct. 2006 to the end of July 2007. in order to identify the problems which confront renal transplant recipients.
A descriptive study was carried out at two Teaching Hospitals with kidney transplant centers. Surgical specialties and Al-Karama outpatients' clinics for (RTR$_S$) ,and three Teaching Hospitals; Medical city Al-Karama and Al-Yermok which were responsible for immunosuppressive drugs distribution .

A non-probability (quota) sample, which was consisted of all kidney transplantation recipients, who were attending the kidney transplantation outpatient's clinics. The sample was selected according to following criteria:

1. Irreversible kidney failure treated by renal transplantation for at least six months.
2. Adult recipients 18-60 years of age.
3. On most common immunosuppressant drugs was used to prevent rejection, corticosteroid, Azathioprine (Immuran), calcineurin inhibitor (cyclosporine A and tacrolimus) Mycophenolate mofetil (cell cept). The sample comprised (150) subjects who received kidney transplantation and attended the outpatient clinics.

The researcher used the appropriate statistical means in the data analysis which include the following

1. Descriptive data analysis: this approach was performed through the determination of: Frequencies (f), Percentage (%)
2. Inferential data analysis: this approach performed through the determination of. Mean of score, Chi-Square (x^2) test, and Pearson correlation coefficient.

In front of each item, there are three choices (always, sometime and never) and each selection has a special score for a statistical application (3, 2, and 1) respectively are scored on a 3-level scale of 1 to 3, where the lower score represents.

Results

Table (1) Demographic characteristics of (150) renal transplant recipients

No	Variables	F.	%	Cumulative%
1	**Age (years)**			
1.1	Less than 20	5	3.3	3.3
1.2	20 – 29	27	18	21.3
1.3	30 -39	45	30	51.3
1.4	40 – 49	45	30	81.3
1.5	50 – 59	20	13.4	94.7
1.6	60	8	5.3	100
	Total	150	100	
2	**Gender**			
2.1	Male	104	69.3	69.3
2.2	Female	46	30.7	100
	Total	150	100	
3	**Marital status**			
3.1	Single	39	26	26
3.2	Married	103	68.7	94.7
3.3	Widowed	0	0	94.7
3.4	Divorced	7	4.6	99.3
3.5	Separated	1	0.7	100
	Total	150	100	
4.	**Level of education**			
4.1	Illiterate	9	6	6
4.2	Read & Write	11	7.3	13.3
4.3	Primary	19	12.7	26
4.4	Intermediate	38	25.33	51.33

Table (1) continued

No	Variables	F.	%	Cumulative%
4.5	Secondary	23	15.33	66.7
4.6	College	24	16	82.7
4.7	Other	26	17.3	100
	Total	150	100	
5	**Occupation**			
5.1	Student	4	2.7	2.7
5.2	Employee	32	21.3	24
5.3	Retired	26	17.3	41.3
5.4	Housewife	30	20	61.3
5.5	Other	58	38.7	100
	Total	150	100	
6	**Change job after transplantation**			
6.1	Yes	73	48.7	48.7
6.2	No	77	51.3	100
	Total	150	100	
7	**Income**			
7.1	Sufficient	1	0.7	0.7
7.2	Insufficient	149	99.3	100
	Total	150	100	
8	**There is Health center in the place of your residence for follow-up and receiving drugs**			
8.1	Yes	117	78	78
8.2	No	33	22	100
	Total	150	100	

$^+$ Mean age 41.5 years

The demographic characteristics of (150) renal transplant recipients indicated that the similar percentage of them (30 %) was accounted for those who were (30 – 39) and (40 – 49) years old ,and (69.3 %) were males . Most of them (68.7 %)were married, (25.3 %) were intermediate school graduates , (38.7 %) of them had others jobs , (51.3 %) of them had no job change after renal transplantation , (99.3 %)of them had insufficient income , while (78 %) had health center in the place of their residence for follow-up which presented them with immunosuppressive drugs .

Table (2) A descriptive statistical for the follow –up items.

No	Items	always	sometime	never	M.S.	Severity
1	Length of treatment	123	12	15	2.72	H
2	Frequent visit to outpatient clinics	123	16	11	2.75	H
3	Frequent investigation	128	21	7	2.77	H
4	Unavailability of material used in initiating frequent investigations	130	18	2	2.85	H

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Table (2) continued

No	Items	always	sometime	never	M.S.	Severity
5	Increased cost of investigation in the private laboratory	138	9	3	2.90	H
6	Difficult, in transportation to and from the outpatient clinics	139	10	1	2.92	H
7	Increased cost of transportation	140	9	1	2.93	H
8	Distance length between place of residence and place of seeking treatment	132	8	10	2.81	H
9	Feeling of exertion because of traveling to receive drugs from outside of the place of residence	54	6	90	1.76	M
10	Limitation of drinking coffee, tea, beverages and alcohols	31	34	85	1.64	M
11	Limitation in taking spices	74	22	54	2.13	M
12	Limitation of taking food outside home	54	36	60	1.96	M
13	Difficulties to get immunosuppressive drugs	142	6	2	2.93	H
14	Limitation of getting adequate dose from health centers, this means purchasing the drug from outside	143	5	2	2.94	H
15	Expensive drugs in private pharmacy	142	4	4	2.92	H
16	Unavailability of drugs in private pharmacy	141	6	3	2.92	H
17	Limitation of diet	60	24	66	1.96	M
18	Taking vegetable oil rather than solid oil	63	15	72	1.94	M
19	Possessing mineral water instead of tap water	84	12	54	2.20	M
20	Limitation of entering crowded places	81	18	51	2.20	M

This table shows that the mean of score are highly on items(1,2,3,4,5,6,7,8,13,14,15 and 16) and moderate on items 9,10,11,12,17,18,19 and 20 .

Table (3) Association between the follow-up and RTR$_S$ age.

Follow-up / Age	Low		Moderate		High		Total		χ² obs.	Sig.
	F	%	F	%	F	%	F	%		
Less than 20 years	0	0.00	4	2.67	1	0.67	5	3.34		
20 – 29 years	1	0.67	10	6.67	16	10.67	27	18.00		
30 -39 years	0	0.00	18	12.00	27	18.00	45	30.00		
40 – 49 years	0	0.00	22	14.67	23	15.33	45	30.00	11.5	N.S
50 – 59 years	0	0.00	10	6.67	10	6.67	20	13.33		
60 years	0	0.00	5	3.33	3	2.00	8	5.33		
Total	1	0.67	69	46.00	80	53.33	150	100.00		

This table indicates that there is a no significant association between age of RTR$_S$ with follow-up domains .

Table(4) Association between the follow-up and RTR$_S$ gender

Follow-up / Gender	Low		Moderate		High		Total		χ² obs.	Sig.
	F	%	F	%	F	%	F	%		
Male	1	0.67	44	29.33	59	39.33	104	69.33		
Female	0	0.00	23	15.33	23	15.33	46	30.67	2.6	N.S
Total	1	0.67	67	44.67	82	54.66	150	100.00		

This table indicates that there is no significant association between gender of RTR$_S$ and follow-up domains.

Table (5) Association between the follow-up and RTR$_S$ level of education .

Follow-up / Education	Low		Moderate		High		Total		χ² obs.	Sig.
Illiterate	F	%	F	%	F	%	F	%		
	0	0.00	5	3.33	4	2.67	9	6.00		
Read & Write	0	0.00	5	3.33	6	4.00	11	7.33		
Primary	0	0.00	7	4.67	11	7.33	18	12.00		
Intermediate	0	0.00	13	8.67	25	16.67	38	25.33		
Secondary	0	0.00	12	8.00	12	8.00	24	16.00	6.58	N.S
College	0	0.00	14	9.33	11	7.33	25	16.67		
Other	0	0.00	13	8.67	12	8.00	25	16.67		
Total	0	0.00	69	46.00	81	54.00	150	100.00		

This table indicates that there is no significant association between level of education of RTR$_S$ and follow-up domains.

Table (6) Association between the follow-up and RTR$_S$ duration since RT treatment .

Follow-up / Duration	Low		Moderate		High		Total		χ^2 obs.	Sig.
	F	%	F	%	F	%	F	%		
6 month - 1 year	0	0.00	15	10.00	10	6.67	25	16.67		
2 - 4 years	0	0.00	20	13.33	42	28.00	62	41.33		
5 – 7 years	0	0.00	13	8.67	14	9.33	27	18.00	8.6	N.S
8 – 10 years	0	0.00	7	4.67	9	6.00	16	10.67		
11 years & above	0	0.00	14	9.33	6	4.00	20	13.33		
Total	0	0.00	69	46.00	81	84.00	150	100.00		

This table indicates that there is no significant association between the follow-up and RTR$_S$ duration.

Table (7) Association between the follow-up and RTR$_S$ type of donor .

Follow-up / Donor	Low		Moderate		High		Total		χ^2 obs	Sig
	F	%	F	%	F	%	F	%		
Related	2	1.33	38	25.33	42	28.00	82	54.67		
Non- Related	0	0.00	30	20.00	38	25.33	68	45.33	2.7	N. S
Total	2	1.33	68	45.33	80	53.33	150	100.00		

This table indicates that there is no significant association between the follow-up and RTR$_S$ type of donor

Discussion

Concerning to the follow-up problems of renal transplant recipients (Table 2) It was noted that the study sample got high Severity mean of mean of score to items(1,2,3,4,5,6,7,8,13,14,15 and 16) Limitation of getting adequate dose from health centers, this will make purchasing the drug from outside (2.94) , Difficulties to get immunosuppressive drugs (2.93),increase cost of transportations (2.93) .

It will be necessary to take some immunosuppressive medication for long as you have the transplant [4].

Because the body never accepts the kidney as part of itself, rejection can occur even years later, particularly if the patient stop his/her medicine. However, it will be possible to reduce the dosage of medications gradually over time, as the risk of rejection lessens with time. [4]

Increase cost of transportation may be related to the present problems which encounter the RTR$_S$ due to the critical situation of Iraqi .And an availability of multiple renal transplantation clinic according to Baghdad sector (the researcher).

The study sample got high severity mean of mean of score to items increase cost of investigation in private laboratory (2.90), unavailability of material used in initiating frequent investigation "(2.85), Frequent investigation (2.77), frequent visit to outpatient clinic (2.75) Length of treatment (2.72), Expensive drugs in the private pharmacy (2.92), unavailability of drugs in private pharmacy (2.92).

Clinical and laboratory outpatient monitoring is an important tool in the prevention and management of complications associated with kidney transplantation and immunosuppressive therapy. In the absence of standard protocols for outpatient surveillance of kidney transplant recipients , recommendation for frequency and type of monitoring are determined by the likelihood of problems that are unique to the individual transplant recipient and particular post transplantation period .In addition ,it is imperative to maintain the transplant recipients overall health by screening for conditions or disease that can be linked to prior renal diseases ,immunosuppressive therapies ,and general health maintenance[5] .

In renal transplantation the costs of care are not only limited to the transplant procedure but also to the evolving costs to treat adverse events, some of them caused by immunosuppressive therapy [6].

Recommendation

1- Provision of the necessary post transplant medicines should be easily acquired from easy to reach centers.

2- Decreasing the bureaucratic hindrances which may render getting the medicines by the patients difficult. Patients should be supplied with their medicines according to the dose specified by their doctors.

3- Increasing the number of the distributing centers and all nephrology units in the general hospitals must be involved in this procedure as well as in follow up.

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