# PREVALENCE AND CLINICAL SIGNIFICANCE OF HEPATITIS "C" VIRUS IN RENAL TRANSPLANT PATIENTS IN EGYPT

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#### **Contents**

	Page
Introduction	1
Aim of the Work	2
Review of Literature	3
I. Infective complications of renal Tx	3
II. Hepatitis C virus	14
* Nature	14
* Epidemiology	17
* HCV in dialysis patient	20
* Clinical profile of HCV infection	23
* HCV and GN	25
* HCV in post- Tx patients	27
* Diagnosis of HCV	<i>28</i>
* Treatment	33
III. Transmission of HCV by renal Tx	39
Patients and Methods	46
Results	49
Discussion	<i>81</i>
Summary	90
Conclusion and Recommendations	92
References	94
Arabic Summary	

#### List of Abbreviations

HCV Hepatitis C- virus. HD Haemodialysis.

HIV Human immunodeficiency virus.

ALT Alanine transaminase ESRD End stage renal disease

ELISA Enzyme linked immunosorbent assay. RIBA Recombinant immunoblote assay.

PCR Polymerase chain reaction.

IgM Immunoglobulin M.
IgG Immunoglobulin G.
HBV Hepatitis B virus.
IFNα Interferon alpha.
S.C. Subcutaneous.

Ab Antibody.

CMV Cytomegallo virus.

EBV Epstein Barr virus.

S.Cr. Serum creatinine.

VZV Varicella zoster virus.

HSV Herpes simplex virus.

HBsAg Hepatitis B surface antigen.

Tx Transplantation.

UTI Urinary tract infection GN Glomerulonephritis.

MPGN Membranoproliferative GN

MGN Membranous GN

EMCs Essential mixed cryoglobulinaemias

Dx Dialysis

## List of Figures

Fig. (1):	virus genome.
Fig. (2):	The natural history of HCV infection.
Fig. (3):	Algorithm for management of the HCV-positive patients.
Fig. (4):	Principle of the Assay.
Fig. (5):	Distribution of cases according to sex.
Fig. (6):	Distribution of cases according to pretrans- plantation blood transfusion.
Fig. (7):	Distribution of cases according to HCV antibody post transplantation.
Fig. (8):	Seroconversion of cases.
Fig. (9):	Association between blood transfusion pretransplantation and HCV antibody
	positivity post transplantation.
Fig. (10):	Association between PCR test results pretransplantation and HCV antibody positivity post transplantation.
Fig. (11):	Association between blood transfusion during the operation and seroconversion.
Fig. (12):	Association between HCV (Abs) pretransplantation and seroconversion of the cases.
Fig. (13):	Association between PCR positivity post transplantation and seroconversion of the cases.
Fig. (14):	Association between pretransplantation blood transfusion and serconversion of the cases.

# List of Tables

<i>Table (1):</i>	Geographic distribution of HCV genotypes.
Table (2):	Comparative nomenclature between
. ,	Simmond's and Okamoto's classifications:
<i>Table (3):</i>	Rates of chronic hepatitis in prospectively
. (-)	followed up patients.
<i>Table (4):</i>	- •
1 11010 (1).	HCV infection in EMC and glomerulome-
<i>Table (5):</i>	phritis
1 Hote (3).	Recombinant HCV antigens used in 1st, 2nd
Table (C).	and 3rd generation Assays.
<i>Table (6):</i>	Impact of Pre- Tx anti HCV on post. Tx.
77 11 (**)	clinical outcomes.
Table (7):	Show all patient groups with the different
	variables which included in the work.
Table (8):	Shows distribution of cases according to sex
Table (9):	Shows distribution of cases according to
	pre-transplantation blood transfusion
Table (10):	Shows distribution of cases according to
	blood transfusion during transplantation
Table (11):	Shows the distribution of cases according
. ,	to recipient (HCV) (Ab) before trans-
	plantation (MeV) (Ab) before trans-
Table (12):	Shows the distribution of cases according
·- (- <b>-</b> )•	to (HCV) antibody post transplantation
Table (13):	Will shows same companion
- 11-00 (20).	Will shows seroconversion of cases from
	HCV - "Ab" -Ve to HCV "Ab" +Ve after
Table (14):	transp-lantation
14010 (14).	We divided our patient into two groups
	according to its HCV - (Ab) +Ve after
Table (15)	operation. This table for HCV (Ab) -Ve.
Table (15):	This table will show HCV (+Ve) antibody
	cases after transplantation and its relation
	to other variable

Table (16): This table will show comparison between (+ve) and (-ve) cases according to various variables by using mean + standard deviation and student - t- test.

Table (17): \* By using chi- square test we compare between HCV (Ab) post. Tx and the following variable. \* (1) Sex.

Table (18): (2) Pre-Tx blood transfusion.

Table (19): (3) Blood Transfusion during operation

Table (20): (4) Recipient HCV - "Ab" pre-Tx.

Table (21): Will show the (80) cases which has not seroconverted

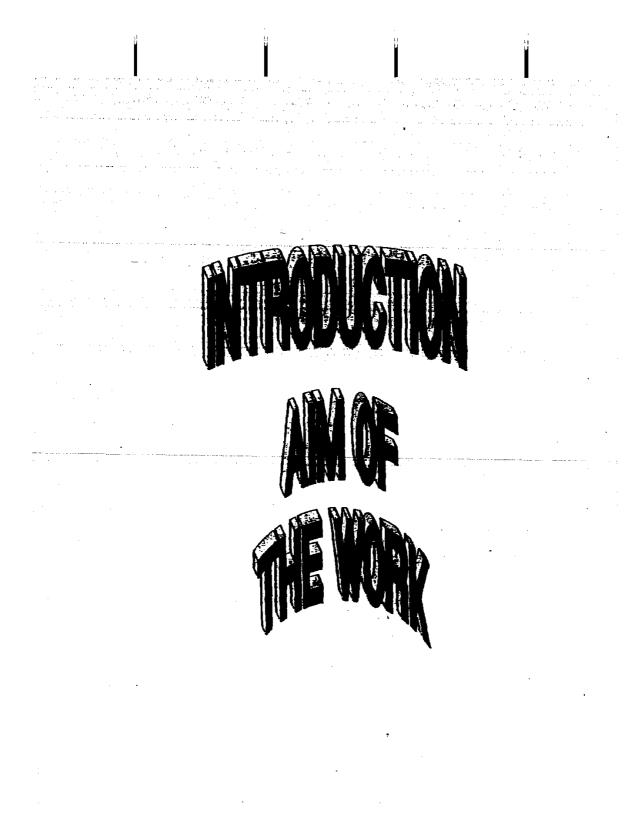
**Table (22):** Will show the (30) cases which seroconverted from (-Ve) to (+Ve) after Tx.

Table (23): This table will show comparison between two seroconverted cases and that which has not converted as regard to other variables.

Table (24): \* We use chi- square test to compare between seroconverted cases and not seroconverted cases as regard to other variables. \* (1) Sex.

Table (25):(2) Pre- transplant blood transfusion.Table (26):(3) Blood Transfusion per- transplantTable (27):(4) Recipient HCV - pre- transplant.

Table (28): By using chi - square test we compare between PCR Post - Tx. and seroconversion of the Cases.



#### INTRODUCTION

Renal transplantation is now an accepted treatment of patients in end-stage renal failure.

A successful transplant, restores not merely life but an acceptable quality of life to such patients.

Chronic liver disease is one of the major complications after kidney transplantation and affects late morbidity and mortality in the recipients (Jay A., et al., 1996).

Many factors may be contributed, one of the most important causes is reported to be viral hepatitis, especially hepatitis - C - virus (HCV) infection. Thus it is essential to screen all prospective transplant recipients for the hepatitis B- and C- viruses and for liver disease, all are adverse factors for transplantation and in some patients would constitute contraindication. HCV infection causes the majority of non - A non - B - hepatitis (Alter et al., 1989).

Although the virus has not been cultured, recombinant viral antigens have been made and are used in the laboratory to detect anti - HCV (Choo et al., 1989).

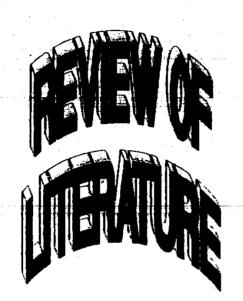
In renal units, HCV infection was related to both duration of dialysis and the number of blood transfusion units received (*Pouteil - Noble et al.*, 1991).

Prevalence rates in dialysis patients vary considerably in different parts of the world, and have been quoted as between 7% and 85% (S. Naicker, 1997).

## AIM OF THE WORK

Our aim in this study is:

\* To detect the prevalence of HCV infection among renal transplant patients and to study clinical, serological and biochemical changes in the liver of (HCV) positive recipients.



# INFECTIVE COMPLICATIONS OF RENAL TRANSPLANTATION

Infection is a leading cause of morbidity and mortality in transplant recipients with more than 80% suffering at least one episode of infection in the first year. (Peterson P.K., et al., 1981).

Infection and rejection are intimately linked through the immunosuppressive therapy (Rubin RH., 1993) for example, to combat a rejection episode, increased doses of immunosuppressive agents are needed (which in turn increases the recipient's risk of infection). On the other hand, if the immunosuppression is decreased to help combat an infection. The patient is at higher risk for rejection (Rubin RH., 1993).

The risk of infection is strongly determined by an interaction between epidemiologic exposure and net state of immunosuppression (Rubin R. H. 1993). The transplant patient is susceptible to any environmental infectious exposure or reactivation of a previously latent infection (Rubin RH., 1993). In addition it is influenced by other factors; indwelling catheters, malnutrition, uraemia, hyperglycemia and infection with immunomodulating viruses such as cytomegalovirus (CMV), Epstein-Barr virus (EBV), HCV and human immuno-diffeciency virus (HIV).