



Ain Shams University  
Faculty of Medicine  
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# **Estimation of Natural Killer T Cells Percentage (CD3 + /CD16 + ) In Hepatitis C Virus Positive Renal Transplant Patients**

## **Thesis**

Submitted for the partial fulfillment of master degree  
in **Internal medicine**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ






قَالَ

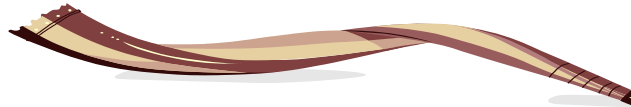
سَبِّحَانِكَ لَا مَعْلَمَ لَنَا  
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

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**Amr Saad**



*To*

*My father, My mother, My  
Brother, My Wife and My son*

*Yahia*

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## *List of Abbreviations*

<b>ALT</b>	Alanine aminotransferase
<b>APCs</b>	Antigen-presenting cells
<b>APRI</b>	Aspartate amino transferase to platelet ratio index
<b>AST</b>	Aspartate aminotransferase
<b>ATG</b>	Anti-thymocyte globulin
<b>BMI</b>	Body mass index
<b>CAPD</b>	Continuous Ambulatory Peritoneal Dialysis
<b>CBC</b>	Complete blood picture
<b>CCPD</b>	Continuous Cycling Peritoneal Dialysis
<b>CD</b>	Clusters of differentiation
<b>CDC</b>	Centre for disease control and prevention
<b>CKD</b>	Chronic kidney disease
<b>CMV</b>	Cytomegalovirus
<b>CPGs</b>	Clinical Practice Guidelines
<b>CRP</b>	C-reactive protein
<b>CTLs</b>	Cytotoxic T lymphocytes
<b>CVD</b>	Cardiovascular disease
<b>DCs</b>	Dendritic cells
<b>DM</b>	Diabetes mellitus
<b>EASL</b>	European association for the study of the liver
<b>EBV</b>	Epstein–Barr virus

<b>EHM</b>	Extra hepatic manifestations
<b>ELISA</b>	Enzyme-linked immunosorbent assay
<b>ENDO</b>	Endothelial cells
<b>ESRD</b>	End stage renal disease
<b>FDA</b>	Food and Drug Administration
<b>GBM</b>	Glomerular basement membrane
<b>GFR</b>	Glomerular filtration rate
<b>HBD</b>	Human beta-defensin
<b>HBV</b>	Hepatitis B virus
<b>HCC</b>	Hepatocellular carcinoma
<b>HCV</b>	Hepatitis C virus
<b>HD</b>	Hemodialysis
<b>HDL</b>	High-density lipoprotein
<b>Hgb</b>	Hemoglobin
<b>HIV</b>	Human immune deficiency virus
<b>HNP</b>	Human neutrophil peptide
<b>HR</b>	Hazard ratio
<b>IFN</b>	Interferon
<b>IL</b>	Interleukin
<b>INR</b>	International Normalized. Ratio
<b>IU</b>	International unit

<b>K/DOQI</b>	The National Kidney Foundation Kidney Disease Outcomes Quality Initiative
<b>LDL</b>	Low-density lipoprotein
<b>LVH</b>	Left ventricular hypertrophy
<b>MASB</b>	Mannose-binding lectin associated serine protease
<b>MBL</b>	Mannose-binding lectin
<b>MDRD</b>	Modification of Diet in Renal Disease
<b>MN</b>	Membranous nephropathy
<b>MPGN</b>	Membranoproliferative glomerulonephritis
<b>NANBH</b>	Non A non B hepatitis
<b>NHANES</b>	The National Health and Nutrition Examination Survey
<b>NIH</b>	National Institutes of Health
<b>NKT cells</b>	Natural killer T cells
<b>PABPs</b>	Pathogen-associated molecular patterns
<b>PCR</b>	polymerase chain reaction
<b>PCT</b>	Porphyria cutanea tarda
<b>PD</b>	Peritoneal Dialysis
<b>PPV</b>	positive predictive value
<b>PRA</b>	Panel Reactive Antibody
<b>PRRs</b>	Pattern-Recognition Receptors
<b>PTX</b>	Pentraxin



<b>RNA</b>	Ribonucleic acid
<b>RTMA</b>	renal thrombotic microangiopathy
<b>RTx</b>	Renal transplant patient
<b>RVR</b>	Rapid virologic response
<b>SAA</b>	Serum Amyloid A
<b>SAP</b>	Serum Amyloid P
<b>SVR</b>	Sustained virologic response
<b>TGF</b>	Transforming growth factor
<b>TLRs</b>	Toll like receptors
<b>TH cells</b>	T helper cells
<b>TJLB</b>	Trans-jugular liver biopsy
<b>TNF</b>	Tumor necrosis factor
<b>Treg cells</b>	Regulatory T cells
<b>UNOS</b>	United Network for Organ Sharing
<b>USRDS</b>	United state renal data system

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