

Environmental Stress And Its Relation To Health Status Of Hemodialysis Depending Patients

Submitted By

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M. Sc. Clinical And Chemical Pathology Al Azhar University, 1989

A Thesis

Submitted in Partial Fulfillment

Of

The Requirement for the Doctor of Philosophy

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الإجهاد البيئي وعلاقته بالحالة الصحية لمرضى الفشل الكلوي

رسالة مقدمة

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ماجستير في التحاليل الطبية والإكلينيكية جامعة الأزهر، ١٩٨٩

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الإجهاد البيئي وعلاقته بالحالة الصحية لمرضى الفشل الكلوي

خلفية : مع تزايد حالات الإصابة بمرض الفشل الكلوي النهائي و الذى يتصاعد بسرعة في جميع أنحاء العالم, هذا يفرض عبئا خطيرا اجتماعيا واقتصاديا والاعتلال لأي أمة. إن تحديد بعض عوامل الخطورة هو مطلب سابق لأي استراتيجيات وقائية.

الأهداف : تحديد بعض الملامح الوبائية للفشل الكلوى المرضى و دراسة العلاقة المحتملة بين عامل الإجهاد البيئي (العدوى) ، واستخدام مضادات الأكسدة وفيتامين (أ) على الحالة الصحية لمرضى الغسيل الكلوى .

المرضى وطرق الدراسة : تم توزيع المرضى إلى مجموعتين : (المجموعتين يتلقون جلسات الغسيل الكلوى ثلاث مرات إسبوعيا) + مجموعة الدراسة ٢ - مجموعة ضابطة، لاستكشاف العوامل المحتملة الاجتماعية والديموغرافية والمهنية والبيئية كعلامات الإصابة بالعدوى الميكروبية واستكشاف العلاقة بين فيتامين (أ) والوقاية من الأمراض الميكروبية . أجريت بعض الإختبارات المعملية والبيوكيميائية لعينات المصل المستخلص من عينة مأخوذة وريديا لفحص بروتين سى آر بى و s.IgG الكلى كعوامل تنبؤ بالعدوى الميكروبية ، s.MDA لقياس دلائل الأكسدة، وفيتامين أ. قبل وبعد التدخل للمجموعتين حيث تلقت مجموعة الإختبار فيتامين أ كمضاد للأكسدة فميا (٠,٠٠٠ وحدة/يوم) كما تلقت محاضرات للتنقيف الصحى (٣/أسبوع) لفترة ثلاثة أشهر .

النتائج : وجدنا التحول المصلي من الإيجابية إلى السلبية بعد التدخل لبروتين سى آر بى : مرحلة ما قبل التدخل ٩ من ٣٠ مريض (٣٠ ٪) سلبى مقابل ١٧ من ٣٠ (٧٠ ٪) إيجابى. بعد التدخل وجد إزدیاد التحول إلى السلبية ١٧ من ٢٨ مريض (٦٠,٧ ٪) بينما عدد المرضى إيجابى ١١ من ٢٨ (٣٩,٣ ٪). بمجموعة الدراسة كان مستوى s.IgG الكلى كعامل تنبؤ بالعدوى الميكروبية أقل من المجموعة الضابطة، s.MDA لقياس دلائل الأكسدة أقل بكثير من المجموعة الضابطة ، مقابل مستوى أعلى من فيتامين (أ) عن المجموعة الضابطة .

الخلاصة : المواد المضادة للأكسدة مثل فيتامين أ لها دور هام فى الوقاية من الأمراض الميكروبية لمرضى الغسيل الكلوى .

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LIST of ABBREVIATIONS

ACE	= Angiotensin Converting Enzyme inhibitors
ADH	= Antidiuretic Hormone
AIDS	= Acquired Immunodeficiency Syndrome
ADPKD	= Autosomal Dominant Polycystic Kidney Disease
ALAD	= Amino-levulinic acid dehydratase
ANNE	= Analgesic- Nephropathy Network of Europe
ANOVA	= Analysis of variance
ANDATA	= Australia and NewZcaland Dialysis and Transplantation Association
ARC	= Aids- related Complex
ARF	= Acute Renal Failure
ARPKD	= Autosomal Recessive Polycystic Kidney Disease
ATPase	= Adenosine Triphosphatase
AVF	= Arteriovenous fistula
BEN	= Bulkan Endemic Nephropathy
BMI	= Body Mass Index
b.MDA	= bound Malondialdhyde
BUN	= Blood Urea Nitrogen
COX I	= Endoperoxide H synthase
COX2	= Endoperoxide H synthase 2
CKD	= Chronic Kidney Disease
CRF	= Chronic Renal Failure
CRP	= C Reactive Protein
DCCT	= Diabetes Control and Complications Trial
DNA	= Deoxyribonucleic acid

DTPT	= Diethylenetriamino acetic acid
E.coli	= Escherichi COli
ECU	= European Currency Unit
EDT A	= Ethelenediamine tetra acetic acid
EDTA	= European Dialysis and Transpantation Association
Elisa	= Enzyme linked Immunoassay
ERA	= European Renal Association Registry.
ESRLD	= End Stage Renal Disease
FBG	= Fasting Blood Glucose
F.MDA	= free Malondialdhyde
FSGS	= Focal Segmental Glomerulosclerosis
GBM	= Glomerular Basement Membrane
GFR	= Glomerular Filtration Rate
G N	= Glomerulonephritis
HBsAg	= Hepatitis B Suface Antigen
HCV Ab	= Hepatitis C Antibody
HD	= Hemodialysis
HDFP	= Hyperteusion Detection and Follow-up Programme
H-ESRD	= Hypertension-related end-stage renal disease
HFRS	= Hemorrhagic Fever with Renal Syndrome
HIV AN	= Human immunodeficiency associated nephropathy
HIV	= Human Immunodeficiency virus
HLA	= Histocomptability antigen
HPS	= Hantavirus Pulmonary Syndrome
<i>IDDM</i>	= Insulin-dependent diabetes mellitus or type 1
IgG	= Immunoglobulin G
IL	= Interleukin

IRD	=Ischemic renal disease
ISO	= International Standards Organization
MCD	= Minimal change disease
MN	= Membranous nephropathy
MRFIT	= Multiple Risk Factors Intervention Trial
MRSA	= Methicillin-resistant staphylococcus aureus
MRSAGN	= MARSA-glomerulonephritis
NAG	= N acetyl glucosaminidase
NE	= Nephropathia Epidemica
NHANES	= National Health and Nutrition Examination Survey
NIDDM	= Non-insulin dependent diabetes mellitus or type 2
NSAIDs	= Non Steroidal Anti-inflammatory drugs
OR	= Odd"s ratio
PGs	= Prostaglandins
PKD1	= Polycystic kidney disease type 1
PKD2	= Polycystic kidney disease type 2
PMP	= per million population
PP	= Post Prandial Blood Glucose
PSGN	= Post streptococcal glomerulonephritis
PTB	= Parathyroid Hormone
PTWI	= Provisional Tolerable Weekly Intake
RBCs	= red blood corpuscles
RBF	= Renal Blood flow
RN A	= Ribonucleic acid
ROS	= Reactive Oxygen Species
RPF	= Renal Plasma Flow
RRT	= Renal Replacement Therapy

S	= Serum
S.E.Score	= Socio-Economic Score
SLE	= Systemic Lupus Erythematosus
S.MDA	= Serum Malondialdehyde
TG FC	= Transforming Growth Factor
TLC	= Total Leucocytic Count
t.MDA	= Total Malondialdehyde
U.K c	= United Kingdom
US or USA	= United States
USRDS	= United States Renal Data System
UTIs	= Urinary Tract Infections
Vs.	= Versus
W.H.O	= World Health Organization

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