

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾ أَقْرَأْ وَرَبُّكَ
الْأَكْرَمُ ﴿٣﴾ الَّذِي عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾ .

صدره اللهم العظم

Dedication

To

Spirit Father **Sheikh Omar Hamdan**

.....

Sons of Sheikh Omar Hamdan

.....

The spirit of my father

.....

Spirit sister Nada

.....

My beloved mother

.....

Brothers

.....

Sisters

.....

My friends

.....

Colleagues

.....

My instructors

.....

Both know me

ACKNOWLEDGMENT

I would express my deep sense of gratitude and record my thanks to my supervisor Dr. Hassan Elsiddig for useful comments, suggestions and constrictive criticism. My thanks extent to my teachers of the histopathology and cytology department at Sudan University of science and technology, particular thanks should be recorded to Nada salih salih.

Finally the full thanks to ALLH.

ABSTRACT

This is retrospective descriptive study, aimed to study the expression of EBV among Sudanese patients with lymphoma cancer. They were conducted in Radiation and isotope center-Khartoum, during the period from September 2011 to July 2012.

Fifty blocks were selected randomly from tissue block of patients with lymphoma cancer. Tissue section was stained using immunohistochemistry methods for detection of EBV marker (LMB-1). The obtained data and results were analyzed using SPSS computer program.

A total of 50 samples obtained from patients with lymphoma cancer were investigated in this study (33(66%)NHL-B 3(6%)NHL-T 14(28%)HL), their ages ranged between 5 to75 years with mean age of 40 years old.28(56%) patients were males and 22(44%) were females.

Twenty samples were positive expression for the demonstrated EBV marker (LMB-1); 14(28%) out of them were Non-Hodgkin's lymphoma B-cell and 6(12%) Hodgkin's lymphoma, consequently of 30 patients negative expression EBV, 19(38%) were Non-Hodgkin's lymphoma-B cell, 3(6%) Non-Hodgkin's lymphoma T-cell and 8(16%) Hodgkin's lymphoma.

From the obtained results, the study concluded that, the expression of EBV marker (LMP-1) among Sudanese patients was statistically insignificant, although 20 samples positive for EBV

ملخص الأطروحة

هذه دراسة وصفية ذات أثر رجعي هَدَفَتْ لدراسة تعبير فيروس ابشتاين بار بين مرضى سرطان الغدد الليمفاوية. أجريت في المركز القومي للعلاج بالاشعة والطب النووي- الخرطوم، خلال الفترة بين سبتمبر 2011 حتى يوليو 2012.

تم جمع خمسون خزعة نسيجية مشخصة من مرضي يعانون من سرطان الغدد الليمفاوية. تم صبغ الخزع النسيجية بطريقة تقنية الأنسجة المناعية للكشف عن واسمه الأورام فيروس ابشتاين بالبيانات المكتسبة حُلِّلتُ باستعمال البرنامج الاحصائي المحوسب المعروف بـSPSS.

حوالي 50 مريض يعانون من سرطان الغدد الليمفاوية تُحرِّروا في هذه الدراسة، أعمارهم تراوحت بين 5 إلى 75 سنة وكان متوسط العمر 40 سنة. كان الذكور 28 (56%) والانات 22 (44%).

من مجموع 20 من المرضى الذين اظهروا نتائج ايجابية كان منهم 14 (28%) Non-Hodgkin's lymphoma B-cell و6 (12%) Hodgkin's lymphoma، وكذلك من 30 مريض اظهروا نتائج سلبية، 19 (38%) Non-Hodgkin's lymphoma B-cell، 3 (6%) Non-Hodgkin's lymphoma T-cell و8 (16%) Hodgkin's lymphoma.

على اساس هذه النتائج، خلصت الدراسة الى ان الارتباط سرطان الغدد الليمفاوية و فيروس ابشتاين بار ليس ذو دلالة احصائية، بالرغم من وجود 10 عينات ايجابية.

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List of Abbreviation

LP	Lymphocyte Predominant
RS	Reed-Sternberg
NHL	Non-Hodgkin's lymphoma
HL	Hodgkin's lymphoma
AIDS	Acquired Immune Deficiency Syndrome
HIV	Human Immune Deficiency
EBV	Epstein-Barr virus
HD	Hodgkin's Disease
ORD	Office of Rare Diseases
MarZL	Marginal zone lymphomas
HLA	Human Leukocyte Antigen
HHV	Human Herpes virus
BcL	B cell lymphoma protein
LPHL	Lymphocyte Predominant Hodgkin Lymphoma
HTLV-1	human T-cell leukemia/lymphoma virus type 1
CNS	Central Nerve System
RA	Rheumatoid arthritis
HTLV-I	human T-cell lymphotropic virus type I
KSHV	Called Kaposi's sarcoma herpes virus
HCV	hepatitis C virus
ATL	Adult T-cell lymphoma
MALT	Mucosa-associated lymphoid tissue

DDT	Dichlorodiphenyltrichloroethane
UV	Ultra violet
UVR	Ultra violet Radiation
FNA	Fine Needle Aspiration
CSF	Cerebrospinal fluid
CBC	Complete Blood Count
LDH	Lactate dehydrogenase
ESR	Erythrocyte sedimentation Rate
CLL	chronic lymphocytic leukemia
PCR	Polymerase chain Reaction
CT	Computed tomography
MRI	magnetic resonance imaging
PET	positron emission tomography
DLBCL	Diffuse large B-cell lymphoma
MALT	marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue'
SLL	Small lymphocytic lymphoma
WM	Waldenström's macroglobulinaemia
HPV	Human papiloma virus
Kbp	Kilo base pair
EBNA	Epstein-Barr viral nuclear antigen
LP	Leader protein
LMP	Latent membrane protein
LFA-1	Leukocyte Function-associated Antigen

ICAM	Intracellular Adhesion Molecule
MCL	Myeloid Cell Leukemia
AR	Antigen retrieval
MC	Mixed Cellularity
M	Molar
LSAB	Labeled Streptavidin Biotin
TNFR	Tumors necrosis factor receptor
CTAR	C-terminal activation regions
KD	Kilo Dalton
EBER	Epstein-Barr encoded RNAs
IHC	Immunohistochemistry
H&E	Haematoxylin and Eosin
PBS	Phosphate Buffer Saline
MØ	Macrophage
LD	Lymphocyte Depletion
NS	Nodular Sclerosis
MPR	multiplanar reconstruction
FDG	fluorodeoxy-glucose
C	Methionine
ManZL	Mantle zone lymphoma

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