قال الله تعالى

وَقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ ۖ وَسَتُرَدُّونَ
إِلَىٰ عَالِمِ الْغَيْبِ وَالشَّهَادَةِ فَيُنَبِّئُكُمْ بِمَا كُنْتُمْ تَعْمَلُونَ

صدق الله العظيم

سورة التوبة الآية 105

Dedications

I dedicate this research to my parents

To my husband the persons whom I love, respect and

appreciated.

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My brothers and sisters

For their support and kindness

My Friends and Colleagues.

Acknowledgment

This research took me almost a seven month, by that time; I have met with great people whose contribute in many ways came out with this project. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

Firstly I would like to note my gratitude to Dr. Hassan Elsiddig Hassan for his supervision, advice, encouragement and guidance from the very early stage of this research as well as attending meetings and conferences. I am in debt to him more than his knows.

Individual acknowledgment to my husband Mr. Esam Abdalbasit M. Alhassan for his advice and bright thoughts which came during scientific discussions and debates which were very fruitful for shaping up my ideas and research.

I gratefully and collective acknowledgment the role of my colleagues in the Central Laboratory Dr. Khalid Enan, Miss. Dalia Murse, Mr. Abdulhaffez Abdulazim, Miss. Yusra Abdulmalik, Dr. Abdulgaffar fahal and Mr. osama M Alkher for their encouragement and their bright thoughts which came during scientific discussion's, also for their willingness in answering a lot of my questions, advice and crucial contribution.

Thanks for the scientific discussions and exhilarating time we spent together as lab mates. I am grateful in every possible way.

My deep thanks are extended to Miss. Nada Saleh for her advice and support me. Also staff members of Dr. Fedil and IbnSina Hospitals for their help and support me in collection of specimen. My thanks go to them for working together in such environment.

Finally, I would like to thanks everybody who was important to the successful realization of this research, as well as expressing my apology to those who I could not mention personally one by one.

Sara O.A. Boshara

Abstract

This is a descriptive retrospective study carried out in central laboratory-Sudan during the period between February 2012 to July 2012.The study aimed at detection of the association of Epstein-Barr virus with oesophageal and stomach cancers among Sudanese Patients using Polymerase Chain Reaction. Samples from 39 patients were included (21 with stomach cancer and 18 with esophagus cancer) their ages ranging from 29 to 70 years with mean age of 55 years old.

All patients underwent upper gastrointestinal endoscopy, two Biopsies were taken, one of them was immediately fixed in 10% formalin and processed by conventional methods for paraffin wax embedding and H&E stain to verify an adequate number of stomach or esophagus cancer cells were present, other one was collected in normal saline to extract the DNA for detection of EBNA-1 gene of EBV using PCR. SPSS version 16 computer program was used to analyze the data and results.

Out of 39 patients with upper GIT cancer, 22(56.4%) patients were males and 17(43.6%) patients were females. EBV expressed in 2(5.1%) of males and 5(12.8%) of females. 21 (53.8%) were stomach cancer, EBV was positive among 5 of the cases (12.8%), 18 (46.2%) of the demonstrated samples were diagnosed as esophagus cancer , only 2 samples (5.1%) showed positivity for EBV.

On the basis of these findings the study concluded that; the expression of EBV in upper GIT malignancies is statistically insignificant P. value = 0.303.

ملخص الاطروحه

هذه دراسة وصفيه استعادية أجريت في المعمل المركزي -السودان خلال الفترة بين فبراير عام 2012 حتى يوليو 2012. تهدف للكشف عن ارتباط فيروس ابشتاين بار مع سرطان المريء والمعدة لدى المرضى السودانيين باستخدام اختبار تفاعل البلمرة التسلسلي. جمعت العينات من 39 مريضا (21 مشخصين بسرطان المعدة و 18 بسرطان المريء) أعمارهم تراوحت بين 29 الى 70 عاما بمتوسط عمر 55 سنة.

وقد اجريت لجميع المرضى منظار الجهاز الهضمى، اخذت عينتين خزعة من كل مريض تم وضع واحده منها فورا في 10٪ من الفورمالين ومعالجتها بواسطة الأساليب التقليدية لتضمين شمع البارافين وصبغها للتحقق من وجود عدد كاف من خلايا سرطان المعدة أو المريء ، والاخرى جمعت في محلول ملحي لاستخلاص الحمض النووى والكشف عن وجود جين ابشتاين بار مولدات المضادات الفيروسية النووية -1 باستخدام اختبار تفاعل البلمره التسلسلى.

(SPSS) تم تحليل البيانات التي تم الحصول عليها باستخدام برنامج التحليل الاحصائي

من أصل 39 مريضا بسرطان الجهاز الهضمي العلوي، 22 (56.4٪) من المرضى كانوا من الذكور و 17 (43.6٪) من الاناث. كشف عن ظهور فيروس ابشتاين بار فى 2(5.1%) من الذكور و 5(12.8%) من الاناث، من اصل 21(53.8%) حاله من سرطان المعده كشف عن ايجابيه وجود الفيروس فى 5 (12.8%) ومن 18(46.2%) حاله بسرطان المرىء وجدت فقط حالتين(5.1%) ايجابيه لهذا الفيروس

على أساس هذه النتائج ، خلصت الدراسة إلى أن الارتباط بين سرطان الجهاز الهضمي العلوي وفيروس ابشتاين بارليس ذو دلالة احصائية.

List of Abbreviation and Symbols

%	percent
C	Degree Centigrade
CD	Cluster of Differentiation
dATP	Deoxyadenosine Triphosphate
dCTP	Deoxycytidine Triphosphate
ddH2O	Double distilled water
dGTP	Deoxyguanosine Triphosphate
DNA	Deoxyribonucleotide
dNTP	Deoxynucleotide Triphosphate
D.P.X	Polystyrene resin dissolved in xylene
dTTP	Deoxythymidine Triphosphate
EBERs	Epstein-Barr virus-encoded RNAs
EBNA	Epstein-Barr virus Nuclear Antigen
EBNA-LP	Epstein-Barr virus Nuclear Antigen-Leader protein
Et-Br	Ethidium bromide
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
H&E	Haematoxylin and Eosin
HPV	Human Papilloma Virus
HTLV	Human T Lymphocyte Virus

ICAM-1	Intercellular Adhesion Molecule-1
IHC	Immunohistochemistry
IL	Interleukin
Kb	Kilo-base
Kbp	Kilo-base pair
KDa	KiloDalton
LFA-1	Leukocyte Function-Associated Antigen-1
LMP1	Late Membrane Protein
LP	Lymphocyte Predominant
M	Molar
Mg	Milligram
MCH	Major Histocompatibility Complex
ML	Milliliter
mM	Millimole
MØ	Macrophage
PCR	Polymerase Chain Reaction
RNA	Ribonucleic Acid
RPM	Round per Minute
TBE	Tris-Base Boric EDTA
UV	Ultra Violet
µL	Microliter

LIST OF TABLE

LIST OF PHOTOMICROGRAPHS