## الآيـــة بِسَمِ أللهِ الرَحمنِ الرَحِيم

قال تعالى:

فَقُلْتُ اسْتَغْفِرُوا رَبَّكُمْ إِنَّهُ كَانَ غَفَّارًا (10) يُرْسِلِ السَّمَاءَ عَلَيْكُمْ مِدْرَارًا (11) وَيُمْدِدُكُمْ بِأَمْوَالٍ وَبَنِينَ وَيَجْعَلْ لَكُمْ جَنَّاتٍ وَيَجْعَلْ لَكُمْ أَنْهَارًا (12)

سورة نوح الآبات 10-12

## **Dedication**

I dedicate this research to

my mother,

my father,

my wife,

my teachers,

my friends,

my daughters Maria and Ishraga

and every one supported me.

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I wish to express my sincere gratitude and appreciation to my supervisor **Prof. Mohammed Siddig Abdelaziz** for their commitment, selfless efforts and constructive contribution to the successful completion of this project. I would like to thank all the staff of Sudan university of sciences and technology, college of medical laboratory sciences and every one helped me.

#### **Abstract**

This is a descriptive cross sectional hospital based retrospective study, the study was conducted at Radiation and isotopes center -Khartoum (RICK), Patient identification data and other information were obtained from patient's file during the period from February to October 2018, aimed to assess the expression of ki67 and E.cadherin in breast cancer in Sudanese patients using immunohistochemistry (Dako), immunohistochemistry results and Patients information were obtained from department medical records of cases diagnosed as breast cancer that had their samples processed in the department of Histopathology of Radiation and isotopes center -Khartoum (RICK).

Eighty cases with relevant histopathologic and clinical information sampled from February to October (2018) breast cancer results were studied. According to markers results breast cancer were selected and classified into two categories, 40(50%) triple negative and 40(50%) non triple negative breast cancer. The patient's age were ranged between 20-80 years old with mean age of 46 years.

According to histopathogical diagnosis the study showed that 66 (82.5%) were invasive ductal carcinoma ,7 (8.8%) were invasive lobular carcinoma, 2 (2.2%) were invasive mammary carcinoma, 2 (2.5%) were metaplastic carcinoma, 2 (2.5%) were papillary carcinoma and 1 (1.2%) was mucinous carcinoma.

The tumor grade of study sample revealed that 4 (5.0%) samples were grade I, 30 (37.5%) samples were grade II and 47 (57.5%) samples were grade III. ki67 index were more than 20 representing 48 (60%) and the remaining 32 (40%) were less/equal 20 with significant correlation with tumar types.

E.cadherin was positive in 68 (80%) of cases and negative in 12 (20%) of other.

The study concluded there is association between ki67 expression and both triple negative and non triple negative breast cancer, no association between ki67 expression and tumor grade, while these is no association between E.cadherin and triple negative and non triple negative breast cancer, as well as tumor grade.

#### المستخلص

اجريت هذه الدراسة الاسترجاعية الوصفية المقطعية بعد الاطلاع علي سجلات المرضي في الفترة بين فبراير الي اكتوبر (2018) بمركز الخرطوم للعلاج بالاشعة و الطب النووي.

هدفت هذه الدراسة للكشف عن التعبير النسبيجي ل (كي أي 67 و الكادرين) في سرطان الثدي باستخدام الكشف النسيجي المناعي (داكو). اخذت النتائج و معلومات المرضى الاخري من قسم الملفات بالمركز.

رصدت ثمانين حالة مكتملة المعلومات المرضية و السريرية التي تم تشخيصها في تلك الفترة الزمنية واخذت النتائج لهذه الدراسة تم اختيارهم و تصنيفهم الي فئتين، سرطان الثدي السلبي الثلاثي 50% و سرطان الثدي غير السلبي الثلاثي 50% الذين تم تشخيصهم سابقا.

تراوحت جميع أعمار المرضي بين 20 الي 80 سنة مع متوسط العمر 46 سنة .

اظهرت الدراسة ان 66 (82%) من الحالات كانت سرطان قنوي غازي ، 7(8.8%) كانت سرطان فصي غازي، 2(2.2%) كانت سرطان ثديي غازي، 2(5.5%) كانت سرطان متحول، 1(2.1%) كان سرطان مخاطي.

اظهرت الدراسة ان درجة تمايز الورم السرطاني للثدي 4 (5%) كانت من الدرجة الأولي ، 30(37.5) كانت من الدرجة الثانية، 30(37.5) كانت من الدرجة الثالثة

مأشر كي أي 67 الاكثر من 20 كان في 48(60%) من الحالات و الاقل او يساوي مأشر كي أي 67 الاكثر من الحالات، بينما كان الكادرين موجب في 88(80%) من الحالات، بينما كان الكادرين موجب في 88(80%) من الحالات و سالب في 12 (20%) من الحالات.

وخلصت هذه الدراسة انه يوجد علاقة بين كي أي 67 و نوع الورم السرطاني للثدي (السلبي الثلاثي و غير السلبي الثلاثي) ولا يوجد علاقة بينه و بين درجة تمايز الورم.

بينما لا توجد علاقة بين الكادرين ونوع الورم السرطاني ولا درجة تمايز الورم ايضا.

## **List of Contents**

Content	Page
الآية	I
Dedication	II
Acknowledgement	III
Abstract (English)	IV
Abstract (Arabic)	VI
List of Contents	VII
List of Tables	X
CHAPTER ONE INTRODUCTION	
1.1 Introduction	1
1.2 Objectives	3
CHAPTER TWO LITRATURE REVIEW	
2-1 Histology of breast	4
2.2 Breast cancer	4
2.2.1 classification of breast cancer	5

2.3 Risk factors of breast cancer	5	
2.4 Diagnosis of breast cancer	8	
2.5 Molecular biomarkers in breast cancer	10	
2.5.1 Estrogen receptor alpha (ER-α)	10	
2.5.2 Progesterone receptor	11	
2.5.3 Human epidermal growth factor receptor 2	11	
2.5.4 Ki67 antigen	12	
2.5.5 E-cadherin	13	
CHAPTER THREE  MATERIALS AND METHODS		
3-1 Study design	14	
3-2 Study area	14	
3-3 Sample	14	
3-4 Immunohistochemical staining	14	
3-5 Statistical analysis	15	
3-6 Ethical considerations	15	
CHAPTER FOUR RESULTS		
4- Results	16	

# CHAPTER FIVE DISCUSSION, CONCLUSION AND RECOMMENDATIONS 5.1- Discussion 30 5.2-Conclusion 33 5.3- Recommendations 33 **REFERENCES** 8- Reference 34 **APPENDIXES** 9- Appendix 1 39 10- Appendix 2 41

### **List of Tables**

Tables	Page
Table(4.1): Distribution of tumor types among study	18
Population	
Table(4.2): Distribution of age group among study population	19
Table(4.3): Distribution of histopathological diagnosis among study population	20
Table(4.4): Distribution of tumor grade among study population	21
Table(4.5) :frequency of ki67 index marker among study population	22
Table(4.6) :frequency of E.cadherin expression among study population	23
Table (4.7): Relation between ki67 index and breast cancer phenotypes	24
Table(4.8) :Relation between ki67 index and tumor grade of breast cancer	25
Table (4.9): Relation between E.cadherin expression and breast cancer phenotypes	26
Table (4.10): Relation between E.cadherin expression and tumor grade of breast cancer	27

## List of microphotographs

Microphotograph (4.1): Tumor shows strong	28
expression of ki 67	
Microphotograph (4.2): Tumor shows low	28
expression of ki 67	
Microphotograph (4.3): Tumor shows strong positive	29
expression of E-cadherin	
Microphotograph (4.4): Tumor shows negative	29
expression of E-cadherin	