

Dedication

To the persons who give me the support, being always encouraging, kindhearted who makes the success and remain in the dark side, to them I dedicate this work, my great

parents

Norah and Gaafar

Acknowledgment

By the grace of Allah and his help I completed this study, all praise to him.

Then the increment is for my family and friends for their support.

My gratitude goes to Dr. Hussain G.adelKarim, my supervisor, who treated me with
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May Allah reward you generously.....

List of Contents

Page number	Subject
I	Dedication
II	Acknowledgment
III	List of Contents
VI	List of Tables
VII	List of Photomicrographs
VIII	Abstract
X	ملخص الدراسة
	Chapter One
1	Introduction
	Chapter Two
6	Review of Literature
6	2-1 Normal anatomy and histology
7	2-2 Infections and Inflammatory conditions
8	2-3 Fibrocystic changes
9	2-4 Benign tumors
10	2-5 Breast cancer
11	2-5-1 Risk factors

12	2-5-2 Signs and symptoms
13	2-5-3 Diagnosis
15	2-5-4 Treatment
18	2-5-5 Estrogen receptors (ERs)
21	2-6 Immunohistochemical techniques
25	Chapter Three Objectives
26	Chapter Four Materials and Methods
26	4-1 Study design
26	4-2 Study population
26	4-3 Sample size
26	4-4 Ethical consideration
26	4-5 Samples collection and smears preparation
27	4-6 Avidin biotin technique
28	4-7 Statistical analysis
29	Chapter Five Results

42	Chapter Six Discussion
46	Chapter Seven Conclusion and Recommendations
47	Chapter Eight References

53	Appendices
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List of Tables

Page	Title	Table
31	Distribution of the study population by age	1
32	ER expression among cases by age	2
33	ER expression by Tribes	3
34	Relationship between contraceptive use and ER expression	4
35	Age at menarche in case group	5
36	Relationship between family history and ER expression	6
37	Number of births in the case group	7
38	Relationship between type of breast cancer and ER expression	8

List of Photomicrographs

Page	Title	Photomicrograph
------	-------	-----------------

39	Positive control: slide from known ER positive breast cancer patient.	1
40	Smear from normal female (control) shows negative ER immunostaining.	2
41	Smear from breast cancer patient (case) shows negative ER immunostaining.	3

Abstract

This study was conducted in Khartoum state during the period from November 2009 to April 2010.

Estrogen receptors (ERs) immunoexpression was evaluated in the oral exfoliative cells obtained from 50 breast cancer patients and 50 apparently healthy females. The ER expression was evaluated by immunocytochemistry using avidin biotin technique on buccal smears fixed in acetone.

Of 100 studied subjects no one showed positive expression in oral mucosal cells. However, 40 breast cancer cases were known ER positive in breast tissues. All previous studies detected ER immunoreactivity in oral mucosa were used Immunohistochemical technique on buccal mucosal biopsies. In this study only ERalpha monoclonal antibody were used and, perhaps ERbeta was the only ER expressed in oral mucosa so the AB couldn't detect it.

The majority of breast cancer patients were in age group ranged from 41 to 50 with mean age of 46.5 years old. However the controls were comparatively younger, the mean age was 24.2 years.

The gaalya rated first among Sudanese tribes affected by breast cancer. Furthermore, they were expressed ER more frequently than others.

This study found a highly significant relationship between contraceptive pills usage and the subsequent development of ER positive breast cancer. Likewise, the presence of family history of breast cancer ($P= 0.000$).

Despite the reported correlation between age at menarche and number of child births as risk factors for breast cancer, the present study suggested that other factors contribute in the development of breast cancer among Sudanese women.

Most of cases present with invasive ductal carcinoma and, less with invasive lobular carcinoma. Interestingly, IDC cases showed positive ER immunoexpression more frequently than ILC cases.

ملخص الدراسة

تمت هذه الدراسة في ولاية الخرطوم في الفترة بين نوفمبر ٢٠٠٩ الي ابريل ٢٠١٠. تم فيها تقييم مستقبلات الاستروجين في خلايا الفم المقشرة ل ٥٠ من مرضي سرطان الثدي و ٥٠ من الاصحاء. تم تقييم مستقبلات الاستروجين باستخدام الكيمياء المناعية الخلوية, بطريقة الافيدين .بيوتين علي المسحة الشدقية مثبتة في الاستون.

لايوجد أحد من المرضي أو الأصحاء أظهر نتيجة إيجابية لمستقبلات الاستروجين في خلايا الفم المقشرة, علما بأنه يوجد ٤٠ من المرضي أظهر نتائج إيجابية لمستقبلات الاستروجين في الثدي. كل الدراسات السابقة التي كشفت عن وجود مستقبلات استروجين في الغشاء المخاطي للفم استخدمت الكيمياء المناعية النسيجية علي الخزعة الشدقية.

استخدمت هذه الدراسة الاجسام المضادة وحيدة النسيلة لمستقبل الاستروجين من نوع الفا دون بيتا الذي يحتمل ان يكون هو الموجود في خلايا الفم.

أغلب مرضي سرطان الثدي في هذه الدراسة تراوحت أعمارهم بين ٤١ و ٥٠ (في المتوسط ٥.٤٦)عاما, لكن الاصحاء كانوا أصغر عمرا (في المتوسط ٢.٢٤ عاما). عدد كبير من المرضي كانوا ينتمون لقبيلة الجعلية وقد أظهر نتائج إيجابية لمستقبلات الاستروجين أكثر من غيرهم.

وجدت هذه الدراسة علاقة كبيرة بين استخدام موانع الحمل الفموية والتطور اللاحق لسرطان الثدي ذو مستقبلات استروجين ايجابية. وبطريقة مماثلة وجود تاريخ اسري لسرطان الثدي (ب=0.000)

إقترحت هذه الدراسة أن يكون السن عند بدء الحيض وعدد المواليد لا يشكلان عوامل خطر لسرطان الثدي عند النساء السودانيات.

الأغلبية من المرضي كانوا يعانون من سرطانة الاقنية الغازية وقله منهم يعانون من سرطانة المفصص الغازية. وأولئك الذين يعانون من سرطانة الاقنية الغازية أظهر نتائج إيجابية لمستقبلات الاستروجين أكثر من غيرهم.