



بسم الله الرحمن الرحيم



Sudan University of Science and Technology
College of Graduate Studies

**Immunohistochemical Expression of E cadherin in Breast
Tumors**

الافراز المناعي النسيجي ل E cadherin في أورام الثدي

A dissertation submitted for partial fulfillment for requirements of M.Sc.
degree in Medical Laboratory Science (Histopathology and Cytology)

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الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

(يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ)

صدق الله العظيم

(الآية 11 المجادلة)

Dedication

To

The patients of breast cancer

To

My father who worked hardly for us

To

My mother Who taught me

How I could be human

To

all my family Whose sense never let me

feel alone in this life

To

For whom he knows himself

I produce this humble effort

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It is a pleasure to express my respect, sincere thanks and gratitude to all subjects for agreement to participate in this study.

Abstract

This is an analytical retrospective case control study conducted at the Radiation and Isotopes Center –Khartoum (RICK) and Sudan University of Science and Technology-College of Medical Laboratory Science during the period from March to August 2016. The study aimed to detect E cadherin in breast tumors among Sudanese patients using immunohistochemical method. Thirty nine paraffin blocks were collected from patients previously diagnosed as breast tumors, of whom 26 (66.7%) samples were diagnosed as malignant tumors, and 13 (33.3%) samples were diagnosed as benign breast tumors. From each block one section was cut (3 μ m) by using rotary microtome to detect E cadherin in breast tumors.

Data was analyzed using SPSS version 20 computer programs; mean, frequency and chi square test were calculated. The study revealed the following.

E cadherin was positive in 27 (69.2%) samples, while 12 (30.8%) samples were negative. From positive results, 11 (84.6%) benign breast tumors, while 16 (61.5%) malignant breast tumors with insignificant differences between E cadherin expression and breast tumors ($P=0.141$).

The study concludes that, there is no relation between E cadherin expression and breast tumors.

المستخلص

أجريت هذه الدراسة التحليلية الإسترجاعية في مركز الخرطوم للعلاج بالأشعة والطب النووي وجامعة السودان للعلوم والتكنولوجيا- كلية علوم المختبرات الطبية خلال الفترة من مارس إلى أغسطس 2016. هدفت الدراسة إلى تحديد الواسمة الورمية E cadherin في أورام الثدي لدى المريضات السودانيات باستخدام كيمياء ومناعة الأنسجة. تم جمع 39 قالب نسيجي لعينات من مريضات مشخصات مسبقا بأورام الثدي، منها 26 (66.7%) عينة مشخصة بسرطان الثدي و13 (33.3%) عينة مشخصة كأورام حميدة. تم قطع مقطع واحد (3µm) من كل قالب باستخدام المشراح الدوار للكشف عن E cadherin في أورام الثدي .

حللت البيانات باستخدام برنامج الحزم الإحصائية للعلوم الإجتماعية (SPSS) وتم حساب الوسط الحسابي والتردد ومربع كاي. وجدت الدراسة ان ال E cadherin يعطي نتيجة إيجابية في 27 (69.2%) عينة و نتيجة سلبية في 12 (30.8%) عينة. من مجموع 27 عينة والتي أعطت نتيجة إيجابية كان منها 11 (84.6%) عينة في الأورام الحميدة و16 (61.5%) في الأورام الخبيثة مع عدم وجود علاقة ذات دلالة إحصائية بين ظهور ال E cadherin وأورام الثدي (P=0.141). خلصت الدراسة إلى عدم وجود علاقة بين ظهور ال E cadherin وأورام الثدي.

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