

# بسم الله الرحمن الرحيم



**HOSSAM MAGHRABY**



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



**HOSSAM MAGHRABY**



# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



A decorative flourish in red ink, consisting of a central vertical line with symmetrical, flowing, scroll-like patterns on either side.

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# بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



HOSSAM MAGHRABY

B 10229

# **Breast Cancer1 (BRCA1) Protein Expression in Epithelial Ovarian Tumours**

Thesis

Submitted to Menoufiya University for partial fulfillment of Master Degree In  
Pathology

By

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## ACKNOWLEDGEMENT

*I wish to express my profound gratitude and sincere thanks to Allah. His magnificent help is the first factor in every thing we can do in our life.*

*I would like to express my profound gratitude to Prof. Dr. Mamdouh Mustafa Radwan; Professor and head of Pathology department, Faculty of Medicine, Menoufiya University, for his continuous support, supervision and unlimited help and encouragement during this work.*

*I am especially grateful and deeply thankful to Prof. Dr. Kawther Amin Amer; Professor of Pathology, Faculty of Medicine, Menoufiya University, for her keen supervision, and her motherly advise and support.*

*I am indebted for Prof. Dr. Mohammed Adel El Sayed Ali; professor of Obstetric and Gynecology, Faculty of Medicine, Menoufiya University, for his continuous support and supervision.*

*I take this opportunity to express my appreciation and sincere gratitude to Ass. Prof. Dr. Mona Abed El Halim Kandil, Assistant professor of Pathology, Faculty of Medicine, Menoufiya university, for her supervision, patience, continuous constructive criticism and support throughout this thesis.*

*I would like to express my profound gratitude to my family without their help and support; this work would not have been accomplished.*

*I would like to express my appreciation to all members of the Pathology department, Faculty of Medicine, Menoufiya University, for there advises and encouragement through out this work.*



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# PRODUCTION AND AIM OF THE WORK

## **INTRODUCTION**

Cancer may be viewed as a genetic disease resulting from critical mutation that disrupts normal cell growth (Towrek et al, 1999). Ovarian cancer is the second most common gynecological malignancy.

In USA, 26.000 women diagnosed with ovarian cancer and 14.500 died of it every year (Farghaly, 2000). About 10% of ovarian malignancies are considered to be an autosomal dominant hereditary breast and ovarian syndrome. The majority of inherited cancers are due to a succession of genetic mutation of BRCA1 located on chromosome 17 (Frank, 1999). Women with BRCA1 mutation have 60% risk of developing cancer ovary (Moselehi et al, 2000). On the other hand BRCA1 expression in sporadic ovarian tumors are the end result of the end passway involving multiple oncogenes and tumor suppressor genes including BRCA1.

BRCA1 is a recently discovered familial breast ovarian cancer susceptibility gene. The subcellular localization of it has been the most controversial aspect of BRCA1 biology and is a key point to uncover its function. Now overwhelming evidence supports a nuclear localization of BRCA1 both in normal and cancer cells (Monterio et al, 2000). The true function of BRCA1 is mainly a tumor suppressor gene, but it interacts with other intracellular proteins that include; Rad51 and BARD1 both proteins complex with BRCA1 in vivo. Missense mutation of BRCA1 disrupts this interaction suggesting that the formation of BRCA 1 /BARD1 heterodimer that is likely to be a critical event in BRCA1 mediated tumor suppressor. BRCA1 shares in DNA repair by interaction with Rad51. It interacts with P53 so acts as cell cycle check point regulator, maintains genome integrity and acts as a promoter of

apoptosis, It also interacts with P21 causing negative regulation of the cell cycle (Alexandra, 1998). Identification of cancer susceptibility genes offers important information for selecting high-risk individuals and subjecting them to prophylactic procedures. Epithelial ovarian carcinomas that occur in a hereditary setting due to transmitted germline mutation are predominantly of serous type, with underrepresentation of mucinous and borderline tumors.

There are many reports about special populations in which BRCA1 mutations are presented at high frequency (Marion et al 2000; Wagner et al, 2000). To our knowledge up till now few previous studies concerning the immunohistochemical detection of BRCA1 protein in ovarian tumors (Osorio et al, 2000).



## **AIM OF THE WORK**

The aim of this study was to estimate BRCA1 expression in ovarian epithelial tumors and correlate its expression with other classical clinicopathological factors and patient survival aiming at estimating its prognostic value.