c-erbß-2 ONCOGENE AND p53 EXPRESSION IN OVARIAN CANCER

Thesis
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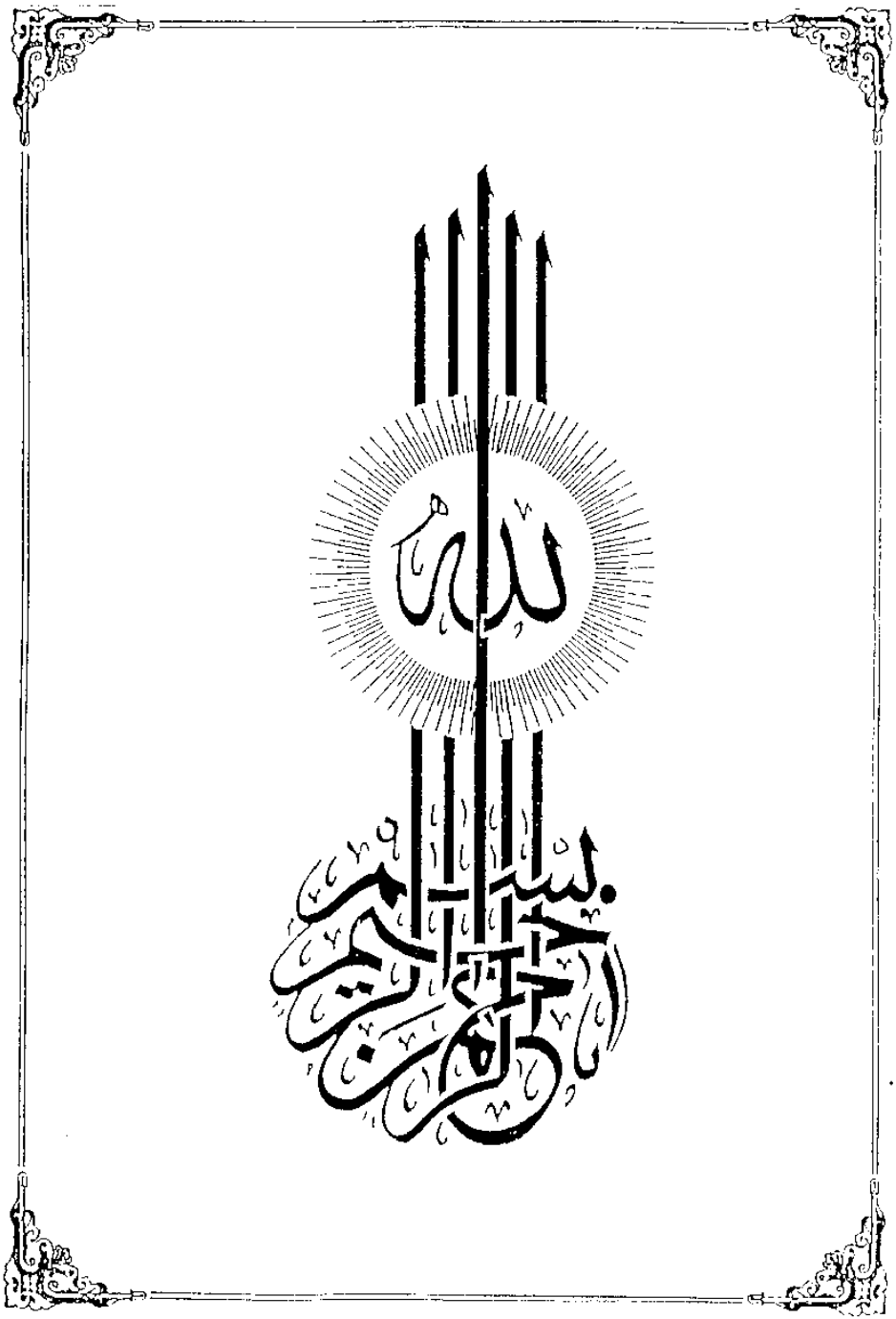

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LIST OF ABBREVIATION

β.M.E	:	β Mercaptoethanol
B.S.A.	:	Bovine serum albumin.
EDTA	:	Ethylene diamine tetra acetic acid.
P.B.S	:	Phosphate buffered saline.
P.M.S.F	:	Phenyl methyl sulfonyl fluoride.
SDS/PAG	:	Sodium dodecyl sulfate poly acrylamide gel.

INTRODUCTION

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Ovarian cancer is currently the leading cause of death from gynecological malignancy in the United States. In 1993 it was estimated that 21.000 new cases of ovarian cancer would be diagnosed in that country and that 13.000 women will die of the disease *(Gallion and Bast 1993)*.

National Cancer Institute stated that ovarian cancer is 1.4 times more frequent than cervical cancer, where the frequency of tumors were: cervical cancer 3.6%, ovary 0.8% and endometerium 0.5% of total cancers *(Mokhtar, 1991).*

Site	No.	%	Mean Age
Cervix	58	26.13	49
Endometrial cancer	52	23.42	54
Uterine sarcomas	6	2.70	47
Mixed mesodermal Tumor of uterus	6	2.70	55
Gestational choriocarcinoma	7	3.15	31
Ovaries	81	36.49	46
Vagina	4	1.80	59
Vulva	7	3.15	62
Clitoris	1	0.45	30
Total	222	100	49

Table (1): Site distribution of cancer of female genital organs
(Author's Series of 222 patients)

Although the cure rate for stage I disease is nearly 90 % the 5 year survival rate for women with clinically advanced disease is only 15-20 %. This is because the majority of patients present with disease spread beyond the ovary despite aggressive surgical debulking and platinum-based chemotherapy.

The percent of 5 year survival rate of patients with ovarian cancer has increased only from 36 % in 1975 to 39 % in 1990.

The clinical course of ovarian cancer is characterized by the confinement of the disease to the abdominal cavity over a long period of time and a scarcity of distant metastases. Often, local complications are the ultimate cause of death.

Our current understanding of ovarian tumorogenesis is limited by the lack of a well defined precursor lesion. It has been hypothesized that ovarian cancer result from the intrapment of surface epithelium within the ovarian stroma following incessant ovulation and that malignant transformation then occurs under the influence of environmental and genetic factors ***(Gallion and Bast, 1993).***

AIM OF WORK

AIM OF THE WORK

The purpose of this study is to evaluate the significance of expression of c-erbB-2 oncoprotein and p53 suppressor gene encoded protein in subcellular fractions of ovarian tumors. This may help to spot light on the mechanism of oncogenesis in this type of tumors which is considered the 2nd killer among Egyptian women.

EPIDEMIOLOGY AND RISK FACTORS

The American Cancer Society in 1991 reported that ovarian cancer accounts for 4 % of all cancers in women, with approximately one in 70 American women developing the disease in their life times.

Although ovarian cancer ranks second in incidence among gynecological cancers. It causes more deaths than any other cancer of the female reproductive system and the estimated the mortality rate as 13,300 deaths in 1993.

Age:

The risk of developing ovarian malignancy increases of the age of 40, with a peak incidence between 50 and 55 years and a median age of 59. The age specific incidence rates range from 2 per 100.000 between 20 and 29 years of age to 55 per 100.000 at 70 years. That is to say that ovarian malignancy affects women in the age group of 65 and older more frequently than younger women, more than 48 % of all ovarian malignancy occur in women in this age group ***(Morino and Jaffe, 1993).***