STEROID RECEPTORS IN OVARIAN NEOPLASMS

A Thesis
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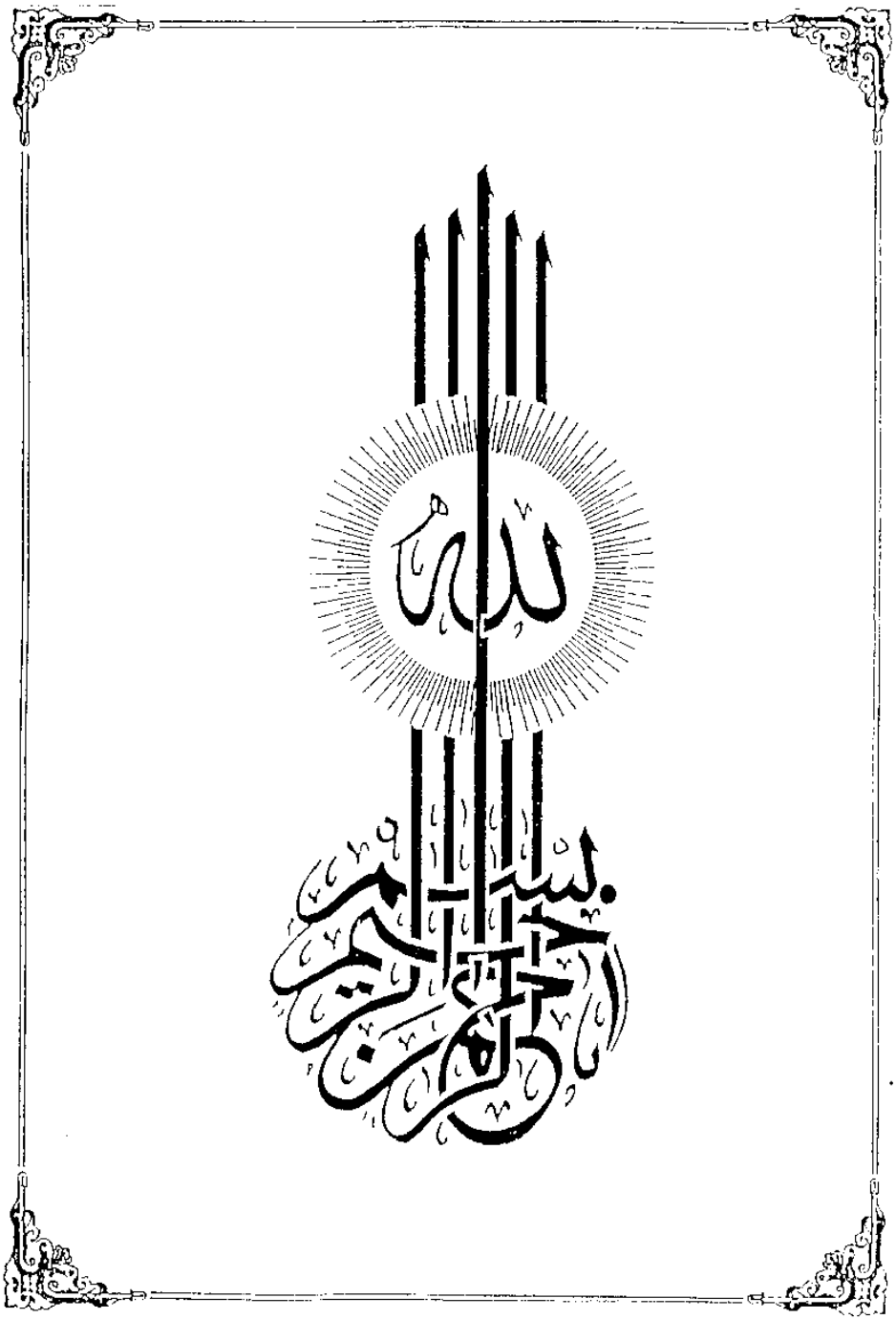

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ABBREVIATIONS

AR	Androgen receptors
cAMP	Cyclic adenosine monophosphate
DCCA	Dextran coated charcoal analysis
DNA	Deoxyribonucleic acid
E2	Estradiol
EGF	Epidermal growth factor
EGF-R	Epidermal growth factor receptors
EIA	Enzyme immunoassay
ER	Estrogen receptors
ER / PR	Both ER and PR
f mole	Femto mole
FSH	Follicle-stimulating hormone
GnRH	Gonadotropin - releasing hormone
GR	Glucocorticoid receptors
hMG	Human menopausal gonadotropin
IGF	Insulin like growth factor
LH	Luteinizing hormone
LN	Lymph node
MPA	Medroxy progesterone acetate
MR	Mineralocorticoid receptors
mRNA	Messenger ribonucleic acid
P	Probability
PR	Progesterone receptors
SD	Standard deviation
SDGA	Sucrose density gradient analysis
SHR	Steroid hormone receptors
TGF	Transforming growth factor
TR	Testosterone receptors

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Arabic Summary

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INTRODUCTION

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INTRODUCTION

The prognosis for women with ovarian carcinoma is poor because of late diagnosis. Early symptoms are lacking and by the time symptoms do appear, in 60-70% of cases the disease has already spread all over the peritoneal cavity (Stage III). The 5 year survival rate is less than 20% in stages III and IV compared with almost 80% in patients with stage I disease (FIGO, 1979). To improve results, a method for early detection of the disease together with an effective chemotherapeutic drugs are imperative. Unfortunately the response of the tumours to the currently used chemotherapeutic drugs is still erratic with no reliable indicator to know the response of the patient. Further, till today there are only a few ways of following the course of the disease and the effectiveness of the treatment (Agarwal et al., 1987).

Various tumour markers have not hitherto proved helpful in clinical use, some monoclonal antibodies are still on trial, but their usefulness in the early detection and in the prediction of the prognosis of the disease has yet to be proved.

Both benign and malignant ovarian neoplasms have been recently shown to contain ER and PR receptor proteins (Sevelda et al., 1990 and Rose et al., 1990). The presence

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of these receptors in ovarian malignancy, like the breast and endometrial carcinomas suggest that the ovarian tumours may be potentially hormonal dependent (Agarwal et al., 1987). However the biological importance of these receptors, their possible relation to the natural history of ovarian neoplasms and their possible prognostic values are not yet fully understood.

The prognostic significance of ER and PR had been defined most clearly in patients with breast and endometrial cancer (McGuire et al., 1983; Ehrlich et al., 1981), and these steroid hormone receptors had been shown to be a reliable markers in these cancers for selection of patients who will benefit from endocrinal therapy (Martin et al., 1979; McGuire, 1979). It therefore seems reasonable to suggest that the pattern of steroid hormone receptors in ovarian carcinoma may have a similar prognostic value and a possible clinical and therapeutic benefits (Al-Timimi et al., 1985). If this does indeed turn out to be the case, then hormonal treatment may be used as a first line therapy in malignant ovarian tumours following proper cytoreductive surgery and this may improve the survival of patients suffering from ovarian cancer, with fewer side effects compared with the traditionally used cytotoxic chemotherapy.

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AIM OF THE WORK

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AIM OF THE WORK

In view of the considerable controversy regarding the presence or absence of steroid hormone receptors in different types of benign and malignant ovarian tumours, the first objective of the present study is an attempt to throw light upon this issue.

The second objective in this study is to find out the correlation between the steroid hormone receptors status and the clinical data of the patients, pathological types and grading of different ovarian tumours.

The third objective is to evaluate the possible prognostic significance of steroid hormone receptors status in patients suffering from ovarian cancer.

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REVIEW OF LITERATURE

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