AIN SHAMS UNIVERSITY
FACULTY OF MEDICINE
OBSTETRICS AND GYNAECOLOGY
DEPARTMENT

PATHOLOGICAL EXAMINATION OF CONTRALATERAL OVARY IN CASES OF UNILATERAL EPITHELIAL OVARIAN MALIGNANCY

(A RETROSPECTIVE STUDY)

53144

THESIS

Submitted for partial fullfillment of Master Degree in
Obstetrics and Gynaecology

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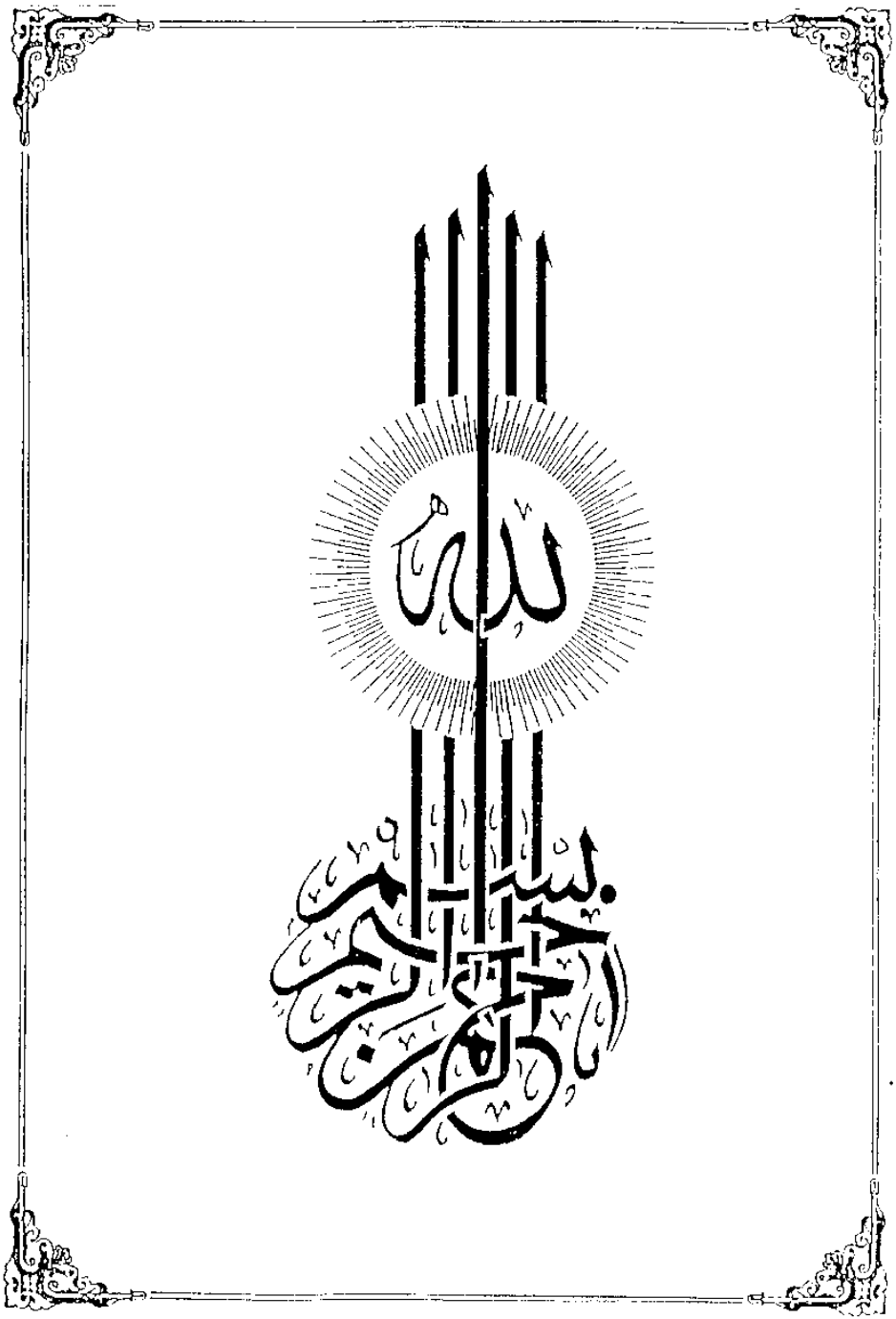

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INTRODUCTION

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INTRODUCTION

Malignant neoplasms of the ovary are the cause of more deaths than any female genital tract cancer : Approximately 23 % of gynaecologic cancers are of ovarian origin, but 47% of all deaths from cancer of the female genital tract occurs in women who have gynaecologic cancer of ovarian origin **(Disia and Creasman,1993).**

Of all gynaecological cancers, epithelial cancer of the ovary ranks first as a cause of death in the United States. The over all 5- year survival rate of these types of ovarian cancers is about 30 % . Failure to diagnose ovarian cancer at an early stage explains in part the poor prognosis of patients with this disease. Usually, the late diagnosis is attributed to the lack of a sensitive test for early detection and the fact that patients tend to be asymptomatic**(Mok et al., 1992).**

It would be quite helpful to know some pathological changes in the contralateral ovary in cases of unilateral epithelial ovarian tumours, which will help in the diagnosis of ovarian cancer at an early stage **(Mittal et al., 1992).**

It is interesting that ovaries of the women with unilateral epithelial ovarian tumours, show a significant increase in the number of inclusion cysts**(Mittal et al., 1992).**

These inclusion cysts are small cystic structures lined by the surface epithelium or mesothelium covering the ovary and become trapped within the ovarian cortex, probably as the result of repeated ovulations**(Powell et al., 1992).**

It has been proposed that epithelial ovarian cancers arise in germinal inclusion cysts of the ovary**(Westhoff et al., 1993).**

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AIM OF THE WORK

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AIM OF THE WORK

The aim of this study is to identify retrospectively the pathological changes in the contralateral ovary in cases of uni lateral epithelial malignancy, in the form of inclusion cysts, stromal hyperplasia, and Psammoma bodies , and comparing them with the pathological findings present in healthy looking ovaries removed during surgical procedures for non ovarian pathology in an attempt to identify the relation of epithelial ovarian cancer and these pathological changes.

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REVIEW OF LITERATURE

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Anatomy of the Ovary

General Description : (Gross Anatomy)

The two ovaries are mainly solid ovoid structures, approximately 3.5 cm in length and 1.5-2.5 cm in thickdess.Each weighs 4-8gms. the right tending to be larger than the left. They are attached to the back of the broad Ligament by the mesovarium, one on either side of the uterus **(Jeffcoate's et al., 1986).**

Each is suspended from the cornu of the uterus by an ovarian ligament. The surface of the adult active ovary is corrugated, and is pale except where there happens to be some structure such as a corpus luteum . The ovary is the only organ in the abdomen which is not covered by peritoneum. The part of the ovary attached to the mesovarium is the hilum and all nerves and vessels enter and leave at this point. In the hilum and adjacent mesovarium are small collections of hilus cells which may be homologous to the interstitial cells of the testis**(Griffith and Berkowitz, 1986).**

* **Microscopic structures of the ovary :**

The ovary is said to have a cortex (outer zone) and medulla (inner zone) but these are not clearly defined Both areas have a connective tissue stroma in which can be found blood vessels, nerves, and graafian follicles in varying stages of development together with their derivatives , corpora albicantia **(Griffiths and Berkowitz ,1986).**

Primordial follicles are mostly found in the cortex, the medulla is more vascular and contains spiral vessels. The cortex is covered with germinal epithelium which consists of a single layer of low cubical cells but is only seen in early life. Later , the ovary

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is coated only by the connective tissue tunica albuginea(**Howkins and Bourne, 1971).**

It is now recognized that the germinal epithelium does not give rise to germ cells, so many prefer to call it surface epithelium . The tunica albuginea is not well developed and not as resistant as the comparable structure in the testis. So distension of the ovary by ripening follicles or by pathological states does not cause pain(**Jeffcoate's - 1986).**

* Relations:

when the ovary is in its usual position, its long axis is nearly vertical. It has medial and lateral surfaces, tubal and uterine ends, and mesovarian and free borders. It lies in a depression, the ovarian fossa, which is bounded in front by the obliterated umbilical artery and behind by the ureter and internal iliac artery. The lateral surface is in contact with the parietal peritoneum lining the ovarian fossa and is separated by this peritoneum from the extraperitoneal tissue that covers the obturator vessels,and nerve. Most of the medial surface is covered by the uterine tube, else where , this surface is related to coils of the ileum .The mesovarian or anterior border is attached to the mesovarium and faces the obliterated umbilical artery. The hilus of the ovary , through which blood vessels , lymphatic vessels , and nerves pass, is located on this barder. The free or posterior border is related to the uterine tube and , behind this , to the ureter. The tubal or upper end is closely connected to the uterine tube, the suspensory ligament of the ovary is attached to this end. The uterine or lower end gives attachement to the ovarian ligament The mesovarium is a short, double - layered mesentry that extends back ward from the posterior layer of the broad ligament to the mesovarian border of

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