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بالرسالة صفحات
لم ترد بالاصل

Immuno Histochemical Study of Ovaian Neoplasia

Thesis Submitted in partial fulfilment for MD
Degree In Obestetrics and Gynecology
To The Faculty Of Medicine
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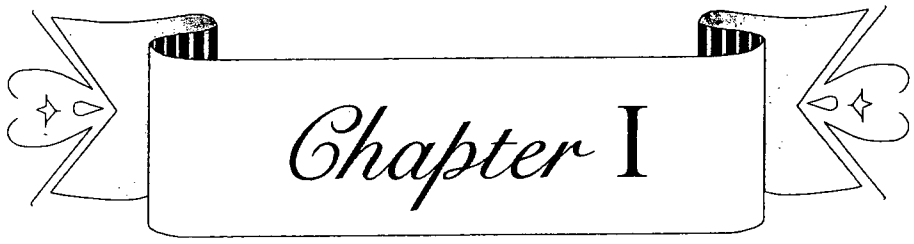
List of Abbreviations

WHO	World Health Organization
CT	Computerized Tomography
UIS	Ultra Sonography
CA125	Cancer Antigen
DNA	Deoxy Nucleic Acid
TLI	Thymidine Labelling Index
PCNA	Proliferation Cell Nuclear Antigen
C-erb 2	Proto Oncogen
MIB	Molecular Immunology Borestel
PC 10	Proliferative Colon 10
AGNORS	Nuclear Organizer Region
LMP	Low Malignant Potential
AGCT	Adult Granulosa Cell Tumor
JGCT	Juvenile Granulosa Cell Tumor
PID	Pelvic Inflamatory Diseases
PCOD	Poly Cystic Ovarian Diseases
FIGO	International Federation of Gynecology and Obstetrics
AJCC	American Joint Committee on Cancer
TATI	Tumor Associated Trypsin Imhibitor
H & E	Haematoxylin and Eiosin
LSD	Least Significant Difference Test
NS	Non Significant
N =	Number
IMBT	Intestinal Mucinous Borderline Tumor
MBLT	Mucinous Border Line Tumor
SBLT	Serous Border Line Tumor
BL	Border Line

Contents



INTRODUCTION AND REVIEW OF LITERATURE

INTRODUCTION

Ovarian tumors are one of the most common forms of neoplasia in women[1,2]. In many cases it is curable when found early, but as it does not cause any symptoms in its early stages, most women have wide spread disease at the time of diagnosis. Partly, the mortality rate from ovarian cancer exceeds that of all the gynecologic malignancies combined. Early mortality in ovarian cancer ,is approximately 65% of the incidence rate. It is the fourth most common cause of death in women in the United States [3].

A precise diagnosis of ovarian neoplasm is very important since the various histologically specific types of tumors carry significantly different biological behavior, prognosis and management. Hence, these tumors should be studied in a systemic classification (WHO, classification of ovarian tumors 1995[4].

Anatomy, Development and Structure of the Ovary:

The ovaries are paired pelvic organs located on either side of the uterus close to the lateral pelvic walls. The human ovaries are almond in shape measuring 2.5 – 5 cm in length, 1.5 – 3 cm in width and 0.6 – 1.5 cm in thickness. After menopause they shrink to one half or less of this in size [5].

The hilus is attached by the meso ovariam to the broad ligament, which is a double fold of peritoneum and extends from the uterine corns laterally to the pelvic wall by the infundibulo pelvic ligament. [5] The ovaries are grayish pink in colour, with a smooth external surface before the regular ovulation starts, but later the surfaces become distorted by the scarring which follows the degeneration of successive corpora lutea. [6]

The ovary consists of a thick peripheral zone or cortex, which surrounds the medulla. Embedded in the connective tissue of the cortex are the follicles containing the female sex cells (oocytes). The follicles are present in a wide range of sizes representing the various stages of development. When a follicle reaches maturity, it ruptures at the surface of the ovary releasing the ovum. At the time of ovulation, the fimbria of the oviduct are closely applied to the surface of the ovary. The current created by the active movement of the cilia on the epithelial cells is responsible for drawing the ovum into the ostium of the oviduct. The ovarian follicles are embedded in the stroma of the cortex deep to the tunica albuginea which is a layer of dense connective tissue (the tunica albuginea)[6] which lies beneath the germinal epithelium. Each follicle has a central oogonium surrounded by a single layer of small cuboidal or flat follicular cells. Many follicles degenerate during childhood or after puberty.

Some of them develop monthly"the graafian follicles". Usually one of the graafian follicles matures and ruptures monthly. During the childbearing period the cortex contains the ovarian follicles, the corpora lutea and atretic follicles. [6] (Figure I)

The medulla consists of loose connective tissue and blood vessels.

Embryology of the ovary:

The embryonic development of the ovary begins in an undifferentiated stage that is similar for both male and female genitalia

It starts by the formation of the urogenital ridge, which with further differentiation gives rise to the genital ridges. [7,8] The genital ridges lie on each side of the midline between the dorsal mesentery and the mesonephros. At six weeks of fetal development, the genital ridge is composed of three components;

1. A differentiated covering coelomic epithelium
2. A subepithelial undifferentiated mesenchyme.
3. Primordial sex cells originating from the yolk sac endoderm and migrating into the genital ridge.[6,8,9]

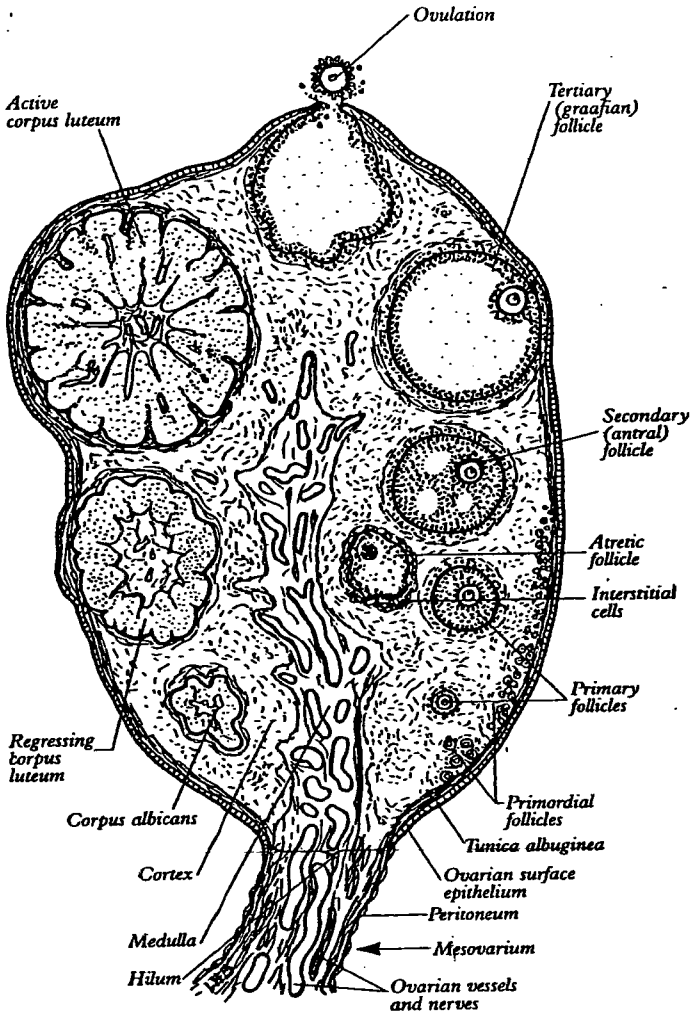


Fig (1) Scheme of the internal structure of the ovary showing its major components.

Coelomic epithelial cells proliferate to form the sex cords that grow down into the underlying mesenchyme and surround the primordial sex cells by a single layer of pregranulosa cells. Later the sex cords undergo atrophy persisting as rete ovariie in the medulla. (Figure II, III)

There is some dispute as to whether the sex cords and the granulosa cells are derived from the coelomic epithelium or from the ovarian mesenchyme due to the close relationship between the sex cord tumors and mesenchymal tumor [9].

The primordial sex cells proliferate forming the bulk of the primitive ovarian cortex. They differentiate into oogonia and by the third month of fetal life they undergo a number of mitotic divisions leading to primary oocyte production.

N.B. By the seventh fetal month [9] the primary oocyte commences the first stage mitotic division. The primary oocyte surrounded by a single layer of granulosa cells is now called the primordial follicle. Encapsulation of oocyte, by granulosa cells arrests mitotic division and no further development of primordial follicles occur until the age of sexual maturity. Differentiation of ovarian mesenchyme provides an origin for theca cells and lutenized stromal cells.[6.7.8.10]