THE ROLE OF COLPOSCOPY IN THE MANAGEMET OF INFLAMMATORY SMEAR

Thesis

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M.S. degree in Obstetrics and Gynaecology

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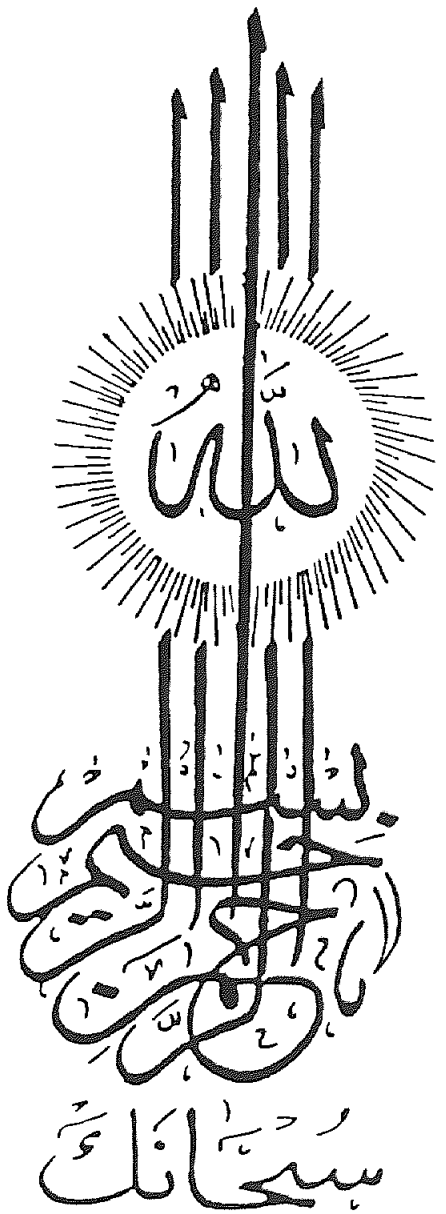

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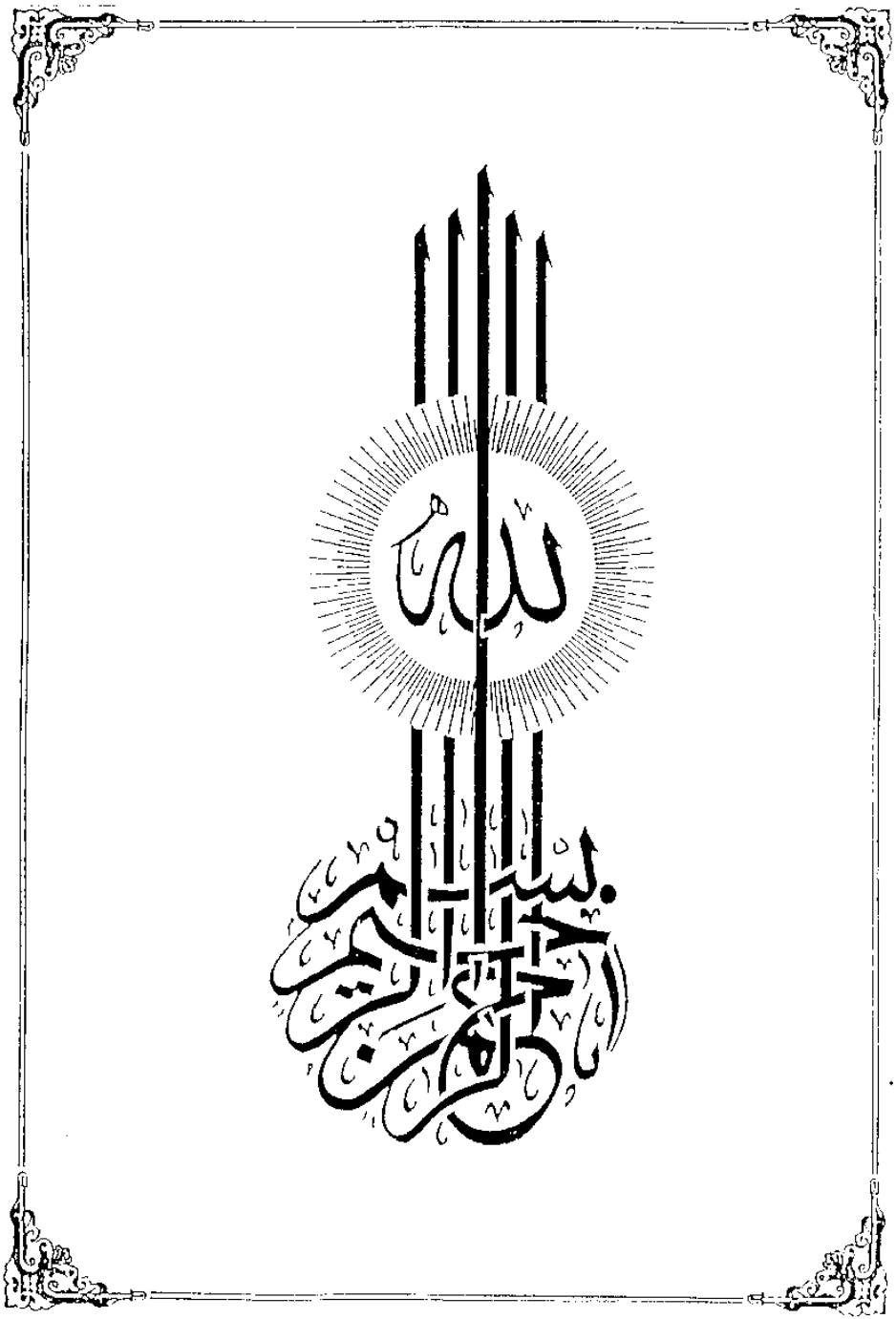

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INTRODUCTION

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The cervix is the commonest site for female genital tract cancer. In a community as that found in Britain and in one's living in a comparable socioeconomic conditions the incidence of invasive carcinoma of the cervix in women aged more than 20 years is about 15 per 100,000 per annum. Among women dying from malignant diseases of all kinds the cervix is the organ primarily involved in 5 percent. Statistics vary considerably from country to another and from race to race. So, in African women living in poor conditions the incidence and relative mortality rates of carcinoma of the cervix may be four to five times higher than those indicated above (**Tindall 1987**).

Cervical cancer is usually preceded by certain premalignant changes that could be more easily treated.Fortunately, the early diagnosis and treatment of cervical cancer could be a good preventive or at least a control measure of the disease (**Richart and Barron 1981**).

Cytological screening is one of the most important methods of diagnosis of cervical cancer and its precursors. The only area in which screening has proved to be cost effective may be that of the uterine cervix (**Benoit et al. 1984**). Cytological screening if properly carried out can reduce the morbidity and mortality of cervical cancer (**Hudsen 1985**).

One of the significant obstacles to the wide application of cytology in cervical cancer screening programs is the high rate of false results (**ELias et al., 1983**). Inflammatory changes may mask dyskariotic cellular abnormalities and cause false negative results. Normal practice

does not include the use of colposcope in the management of inflammation without intraepithelial neoplasia or condyloma.This is because the significance of a cytologic diagnosis of inflammation without CIN or HPV smear has not been adressed. The significance of cervical cytology with atypical cells has been studied extensively, and importance of close follow - up with colposcope and directed biopsy has been reported (**Lawley et al . 1990**) .

AIM OF THE WORK

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The aim of the present study is to evaluate the role of colposcope in detection of false negative cytology rate in patients with inflammatory smears .

REVIEW OF LITERATURE

Embryology of the Cervix

The Mullerian ducts "paramesonephric ducts" appear at the 5 th week of the intrauterine life: one in the outer part of each intermediate cell mass (**Jirasek, 1976**). They form as buds of the coelomic epithelium at the cranial end of the urogenital sinus, each one grows down lateral to the corresponding wolffian duct until it reaches a low level, there it turns inwards and crosses anterior to the wolffian duct joins its fellow from the opposite side at the back of the urogenital sinus. In forming the uterus and cervix, the mullerian ducts fuse from below upwards and their adjacent wall breaks down to form a single cavity, this fusion begin at the 7 th or 8 th week and is completed at the 12 th week of the intrauterine life (**Pattern, 1968**). Differentiation of the cervix from the body of the uterus is recognized by the 10 th week but the cervix is not clearly separated from the vagina until the 20 th week. The cervical glands present by the 28 th week, so there is definable secretory activity in the endocervical glands during late intrauterine life (**Tindall, 1987**).

At birth, the cervix measures about 16 mm in length, it doesn't stand out as a vaginally discernible separate structure. The cervix is prominent and equal in size to the whole corpus, the epithelium of the upper part of the vagina merges with that of the cervix so that no external os is seen and its boundaries cannot be defined. No much characters are noted in early childhood when the cervix is nothing more than a flat plate of the vaginal apex, occasionally a vague external os can be seen but there is no cervical secretion.

With the first evident activation of the feminizing hormones the cervix alters its size and shape. With the appearance of menarche the cervix thus increases in size and begins to assume a conical shape **(Parsons and Sommers 1978)**.

Anatomy of the cervix

The term cervix (taken from Latin meaning "neck") is the most inferior portion of the uterus protruding into the upper vagina. It starts above at the internal os which corresponds approximately to the level at which the peritoneum is reflected upon the bladder.The cervix is barrel shaped measuring 2.5 to 3.5 cm from above downwards. The vagina is fused circumferentially and obliquely around the cervix dividing it into an upper supravaginal and lower vaginal portion (**Smout, 1969**).

a) The vaginal cervix " Portio-Vaginalis" :

It is the part that is seen during speculum examination of the vagina; it is covered with squamous epithelium which is continuous with that of the vagina (**Last, 1978**).

It is directed obliquely downwards and backwards and usually it impinges on the posterior vaginal wall, thus the anterior lip lies below the posterior lip, and it is this lip that the finger first touches during vaginal examination.

b) The supravaginal cervix :-

It is the part which lies above the vaginal attachment, this part is surrounded by pelvic fascia except on its posterior aspect where it is covered with the peritoneum of the pouch of Douglas.

The external cervical os :-

It is located at the lower extremity of the vaginal portion of the cervix. It varies greatly in appearance, before child birth, it is small regular with an oval opening, after child birth, the orifice is converted into a transverse slit with anterior and posterior lips (**Pritchard et al., 1985**).

The Cervical Canal :-

It is 2-3 cm long and it provides a passage way between the vaginal and the uterine cavity. It is spindle shaped in longitudinal section and circular in transverse section. Cranially it is continuous with the uterine cavity whereas caudally it ends at the external os into the vaginal lumen.

Relationships :-

The whole of the anterior wall of the cervix lies below the floor of the uterovesical pouch of the peritoneum and it is separated from the base of the bladder only by connective tissue. Posteriorly, the peritoneal covering extends down as far as the upper most portion of the vagina. Therefore, the entire posterior surface of the cervix is covered by peritoneum and is separated from the rectum by the rectouterine pouch of Douglas.The ureters as they pass to the bladder, run parallel to the cervix for a distance of 8 - 12mm. The uterine artery crosses the ureter anterosuperiorly near the cervix, about 1.5 cm from the lateral fornix of the vagina (**Krantz, 1951**). Laterally, the cervix is attached to Mackenrodt ligaments (**Last, 1978**) which provide the major support of the uterus and vagina (**Smout, 1969**).