A RETRO SPECTIVE STUDY OF UTERO VAGINAL PROLAPSE IN THREE YEARS (1976 - 1978) AT AIN SHAMS UNIVERSITY

A Thesis

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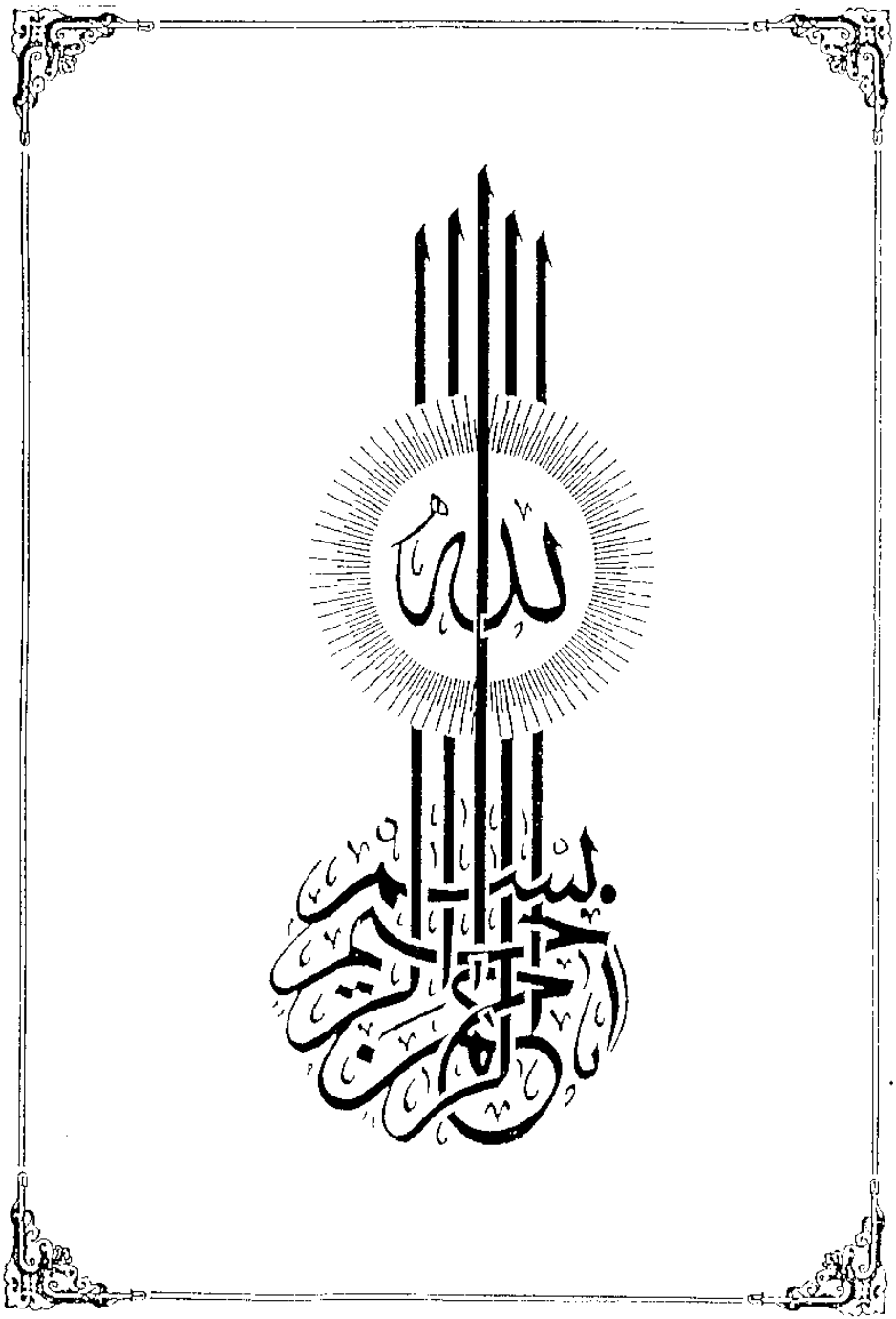

C O N T E N T S

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INTRODUCTION

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The utero vaginal prolapse is the descent of the vaginal wall (anterior or posterior), uterus or both together through the vulva.

Utero vaginal prolapse is the result of the weakning effect of the lengthening and attenuation of the fascial supports of the urethra, bladder, uterus upper posterior wall of the vagina, and rectum.

If may occur in both young and old virginal women however, the great majority are the delayed but direct result of childbearing .

If the injury to the utero sacral and cardinal ligaments is extensive, evidence of relaxation appears soon after delivery.

The clinical manifestation of pelvic relaxation appear in the menopausal and post-menopausal era , when the tonic effect of the ovarian hormones is lost and atrophic changes in the fascial supports begin.

Pelvic relaxation should be regarded as any hernia both are produced by a weakness of the supporting tissue and are progressive in nature.Danforth (1977).

This study aimed at examining cases of utero vaginal prolapse done in the department of obstetric and gynaecology, Ain Shams University hospital. During the years 1976-1978 .

The study include analysis of data available in the patients records in order to evaluate the following: age, parity, types, complaints, investigations done, management & post operative complications.

The data available in the patients records are tabulated and the results are evaluated but there is no follow up to the patient operated in the Ain Shams hospital so the results of the operation are not evaluated.

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A N A T O M Y

THE UTERUS :

This is a pyriform muscular organ, centrally placed in the pelvic cavity. It consists of the cervix the isthmus and the corpus uteri.

The normal position of the uterus is an anteversion and antiflexion.

RELATION OF THE UTERUS

Anterior:

Base of the bladder at the level of the cervix, utero vesical pouch at the level of internal os & bladder or small gut above this.

Posterior:

The pouch of Douglas at level of the cervix which contain small and large gut.

Lateral:

From below upward Mackenrodt's ligaments, uterine vessels, the ureter at the level of the cervix above this, the Broad ligaments, ovary, fallopian tube, & round ligament, and below, the opening of the fallopian tube.

UTERINE SUPPORTS :

(1) LIGAMENT OF THE UTERUS :

1. Transverse cervical ligaments:

The transverse cervical or cardinal ligaments (ligaments of Mackenrodt's) one on each side, run from the supravaginal cervix, and the lateral vaginal walls above the levator ani, laterally to be inserted into the fascia covering the side wall of the pelvis. They are usually described as condensation and thickening of the pelvic fascia around the sheathes of the uterine vessels.

They attach the vagina to the side wall of the pelvis and are the main structures hodling the upper two-thirds of the vagina in position.

It is believed that much of their content is involuntary muscle and that atrophy of the muscle after the menopause predispose to prolapse: Browne (1973)[2].

The cardinal ligaments are penetrated by the ureter at the level of the vaginal fornix, creating a site of possible injury to the ureter in pelvic surgery.

2. Utero sacral ligaments:

The utero sacral ligaments are also paired ligaments. They are attached anterior to the postro-lateral aspect of the cervix at the level of the internal os.

Posteriorly they are attached to the prescral fascia opposite the lower portion of the sacroiliac articulation.

From the anterior third of the ligaments fibrous bands course downwards to attach to the lateral vaginal fornices. The utero-sacral ligaments help to prevent descent of the uterus and vagina and to keep the cervix braced back against the sacrum and thus prevent retroversion.

3. Pubocervical Fascia:

Goff (1931)[3] indicate that there is no pubocervical ligament but that the tissue in question represents the fibromuscular layer of the vagina.

4. Round ligaments:

The round ligaments run on each side from the cornu of the uterus below the entrance of the tube forwards and laterally to the internal abdominal ring to the front of the pubis where its attenuated fibres are lost in the

labium majus. The ligaments are composed of fibrous tissue and muscle but probably have litle or no action in maintaining the position of the uterus. And is easily stretched to great length if the uterus is retroverted or prolapsed.

5. Broad ligaments:

The broad ligaments are formed by the two layers of peritoneum that pass off from the sides of the uterus and are draped over the fallopian tubes and infundibulo-pelvic ligaments with the pelvic fascia. They may have some slight action in supporting and steadying the uterus. In the base of each broad ligament is the strong cardinal ligament.

(2) THE PELVIC FLOOR MUSCLE:

Most gynaecologist believe that the ligaments of the uterus which are derived from condensations of the pelvic fascia, constitute the chief support. The voluntary musculature being of secondary importance due to the following reasons.

The levator ani has no attachment to the cervix.

Nicholl's, Milley, and Randall (1970)[4] have shown by means of colpography that the cervix and upper vagina

lie above the levator, behind the genital hiatus, held by the cardinal and uterosacral ligament.

The levator ani together with coccygei form a muscular diaphragm which supports the pelvic viscera and appose itself to the downward thrust produced by any increase in the intraabdominal pressure.

THE LEVATOR ANI MUSCLE:

A broad, thin muscle, is attached to the inner surface of the pelvis and unites with the opposite muscle to form the greater part of the floor of pelvic cavity. It is attached, in front, to the pelvic surface of the body of the pubis & to the medial surface of the spine of the ischium and between these two points, to the obturator fascia.

The muscle consist of three parts, the pubococcygeus, the iliococcygeus and the ischiococcygeus. Of these the pubococcygeus is by far the most important.

1. THE PUBOCOCCYGEUS:

Arise from the back of the pubes 1 cm to one side of the middle and midway between the upper and lower

borders, and from the white line. It contains three distinct muscle the pubovaginalis, the puborectalis, and the bubococcygeus proper.

A) The pubovaginalis:

This muscle band is the most medial part,behind the vagina the muscle joins its fellow of the opposite side, there helping to form the perineal body.

B) The pubo-rectalis:

This is the intermediate part of the pubococcygeus. It skirts the anus and blends with its fellow of the opposite side, it forms a loop around the ano rectal junction and is inserted into the anococcygeal raphe.

C) The pubococcygeus proper:

This muscle band is the most lateral part of the pubococcygeus. It is inserted into the side of the coccyx.

2. ILIOCOCCYGEUS:

The ilio-coccygeus muscle arises from the white line behind the obturator canal, and passing transversely inwards underneath the terminal part of the pubococcygeus, is inserted into the sides of the coccyx and the median raphe, it is usually thin and may be replaced largely by

fibrous tissue. An accessory slip at its posterior part is sometime named the iliosacralis.

3. THE ISCHIOCOCCYGEUS:

The ischiococcygeus muscle completes the pelvic diaphragm behind. It arises from the spine of the ischium by a narrow origin and fans out to be inserted into the side of the coccyx and lower part of the sacrum. Roger & Peter (1973)[5] .

NERVE SUPPLY:

The levator ani is supplied by the pudendal and the 4th sacral nerve. (Smout) (1963)[6].

THE PERINEAL MUSCLES:

1. The bulbo-cavernosus (vaginal sphincter).
2. The ischio-cavernosus.
3. and the superficial transverse perineal muscle.

THE VAGINA :

The vagina is an elastic fibromuscular canal extending upwards and backwards from the vulva.

FASCIA AND MUSCLE :

The epithelium rest on a subepithelial connective tissue layer which contains elastic tissue. Outside are

muscle coats in which the fibres are nearly all arranged in a criss cross spiral fashion. The muscle of the vaginal wall is involuntary in type although there are sometimes of few intermingling.voluntary fibres contributed by muscles such as the levators ani at the sites of their insertions.

RELATION OF THE VAGINA:

Anterior:

Embeded in the lower anterior vaginal wall is the urethra. Its muscles fuse with those of the vaginal coat without the intervention of fascia so it is difficult to separate from the vagina at the time of operation. In close connection too are skene's tubules which open into the urethra.

Above the urethra the vagina is in relation to the bladder separated from it by fascia and loose areolar tissue.

SULCI IN THE ANTERIOR VAGINAL WALL:

Three grooves can be distinguished in the anterior vaginal wall. A small groove lies immediatly above the external meatus. " Submeatal sulcus". About 4 cm.above this level a 2nd sulcus " transverse vaginal sulcus "