A SURVEY STUDY OF CASES OF G.U.F.s ADMITTED TO AIN SHAMS UNIVERSITY HOSPITAL IN THE YEARS 1975-1979 AND FIRST HALF OF 1980

A THESIS

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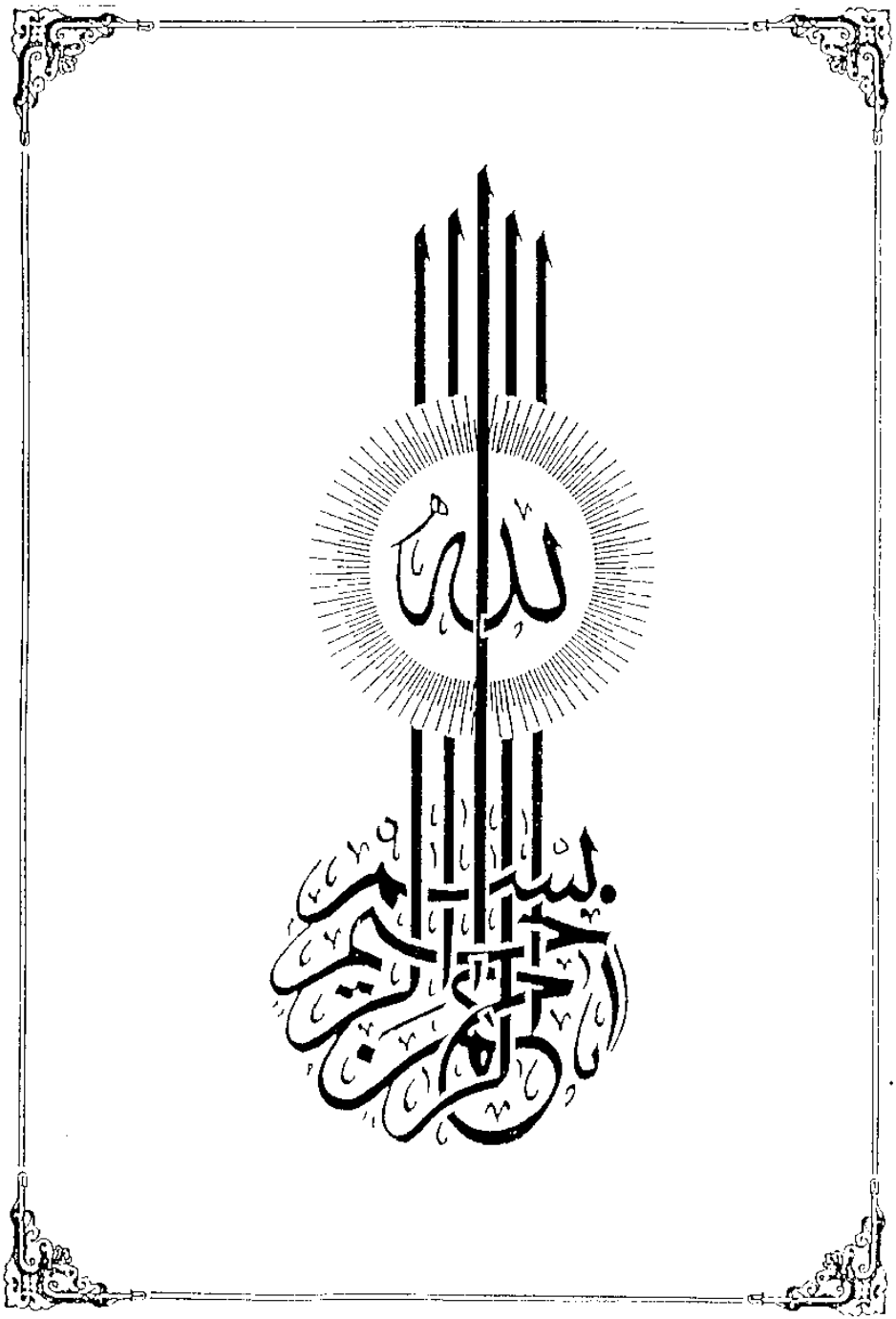

I N D E X

INTRODUCTION

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Genitourinary fistula is an annoying condition. The patient and her social intimates become aware of its symptoms almost immediately.

G.U.F. is such a catastrophic situation that it may completely alter of even ruin a person's life. The constant irritation of the vagina, vulva and perineum, together with the insecapable odour of urine about herself and surroundings, may change a woman who was formaly agressive and socially prominent into a recluse or social out cast with an exceeding grim outlook on life.

A fistula is literally defined "as an abnormal passage or communication, usually between two internal organs, or leading from an internal organ to the surface of the body."

Mesani in 1971 defined G.U.F. "as abnormal communication of the genital organs and some part of the urinary tract through which urine is discharged".

HISTORICAL REVIEW

Derry of the faculty of Medicine, Cairo, described in 1935 a large V.V.F. in the mummy of a dancing girl of the court of Mantuhotep, who ruled about 2050 B.C. Examination of the pelvis showed a marked narrowing of the transverse diameter and he concluded that the fistula was caused by damage during childbirth (Masani, 1971)[29].

Mahfouz, N. stated that the first mention of fistula in literature is found in a passage in Al-Kanoun by Ibn Sina. This great observer not only mentions the occurance of urinary fistula in women but also states that they occur as a sequal of difficult labour (Mahfouz, 1938)[26].

A concerted effort to close fisutlae, in different countries during the first half of the nineteenth century failed to evolve a successful and effective method. In Europe, Eminent surgeons of different countries evolved and adopted methods of their own. Prominent amongest them were A.J.Jobert de lamballe of france, Wutzer of Bonn, Gustav Simon

of Darmstadt, Johann Van Metzler of prague, and Montague Gosett of England (Masani, 1971)[29].

In 1852, J. Marion Sims described his vaginal procedure and methods for cure of V.V.F. Among the first cases of V.V.F.s described by Sims two were negro women. Both were examined in the knee-chest position and diagnosed as V.V.F.s. He operated upon his first patient on 10th January, 1846, but the operation failed. The first case operated upon with silver-wire stitches was named Anarche, on June 21, 1849 and the operation was successful. In New York (1850). Sims worked with his assistant Dr. T.A. Emmet and treated many cases of V.V.F.s (Meir, 1967)[32].

The year 1894 saw a great advance in the operative technique for the cure of fistulae, when MacKenrodt published the flap-splitting technique which bear his name.

All later techniques are simply modifications of Mackenrodt's operation adapted to suit the different types of fistula (Falk, 1964)[15].

Fig. 1. Varities of G.U.F.s.

REVIEW OF LITERATURE

CLASSIFICATION

Fistulae primarily involving urinary bladder

Vesicovaginal , Vesico-uterine , Vesico-urethro-vaginal.

Vesico-cervico-vaginal, Vesico-uretero-vaginal.

Fistulae primarily involving urethra

Urethro-vaginal , loss of urethra ,

Urethro-cervico-vaginal.

Fistulae primarily involving ureter

Uretero-vaginal , uretero-cervical ,

Uretero-vesico-vaginal , uretero-vesico-cervico-vaginal .

(Counseller & Welch, 1960)[11].

AETIOLOGY

Obstetrical injury :

There are two ways by which an obstetric urinary fistula results, (1) pressure necrosis and sloughing of the tissues, and (2) injury during obstetric operations.

1. Pressure necrosis :

In neglected or difficult delivery the compressed tissue which include the bladder trigone and the vesico-urethral junction lie between the fetal head and the posterior surface of the pubic bone. The necrotic tissue sloughs out leaving a hole in the bladder base. The resulting fistula is usually situated midway between the cervix and the external urinary meatus. The urinary incontinence occurs seven to ten days after the difficult labour (Falk, 1964)[15].

2. Injury during obstetric operations:

A sharp instruments, such as a perforator or a spicule of cranial bones, may directly injure the bladder but the majority of cases follow forceps delivery.

Emmet, many years ago, emphasized that fistula is caused more often by delay in applying forceps when the head is impacted. In such cases the compressed oedematous soft parts are readily lacerated during foceps delivery. Rotation by forceps is particularly dangerous, leading to lacerations of the anterior vaginal wall, they frequently extend deeply into the bladder with risks of a subsequent V.V.F.

The lower segment caesarean section itself carries some danger to the bladder, especially if there has been a previous caesarean section and has been complicated by sepsis, the separation of the bladder can be difficult, and it may be torn (Meir, 1967)[32].

A rare complication of lower segment caesarean section is a fistula which link the bladder with the uterine cavity above the level of internal os. Menstrual blood passes through the bladder and becomes contaminated with urine, a condition described as menouria by Youssef, 1957[44]. In the case reported by Bhasker Rao in 1961; classical caesarean section was the cause[2].

Gynaecological injury :

In view of the fact that the genital tract is in close anatomic proximity to the lower urinary tract, the latter is exposed to injuries during gynaecologic operations. The bladder or the ureters may be injured but ureteric fistulae are much more frequent than the vesical.

Extensive surgical procedures that are performed for the treatment of carcinoma of the cervix, occasionally leave the blood supply to the lower ureters and bladder in marginal state. Necrosis of the affected region and subsequent formation of a fistula may result, especially if infection occurs (Counseller,1952)(c).

The ureter may be cut or clamped at its entery into the pelvis (especially in the case of pelvic inflammatory disease or endometriosis). This is danger point No. 1. At the pelvic wall, the ureter always clings to the peritoneum, though it is liable to injury during an attempt to staunch bleeding by blind clamping at this site. This is danger point No. 2. In the ureteric tunnel in Mackenrodt's ligament where the ureter passes beneath the uterine vessels, 1.5 - 2 cm from the cervix. Here it is at greater peril in

all hysterectomies. This is danger point No. 3. The ureter is in especial danger in all radical operations for cancer of the cervix when it traverses the pubo-cervical ligament. This is a common but little publicised site of injury-danger point No. 4 (Howkin & Bourne, 1971)[17].

In vaginal hysterectomy the ureter is likely to be damaged if the bladder is not pushed high enough and held up during clamping of the uterine blood vessels (Masani, 1971)[29].

The bladder is liable to injury during separation from the vagina and the cervix, with subsequent development of V.V.F.

Malignant :

Invasive carcinoma of the urinary bladder, urethra, uterine fundus, uterine cervix, or vagina may be themselves, form fistulae. Commonest among the malignant causes of G.U.F.s is carcinoma of the cervix (Counseller & Haigler, 1956)[10].