SURGICAL ASPECT OF INGUINAL HERNIA

ESSAY

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BY

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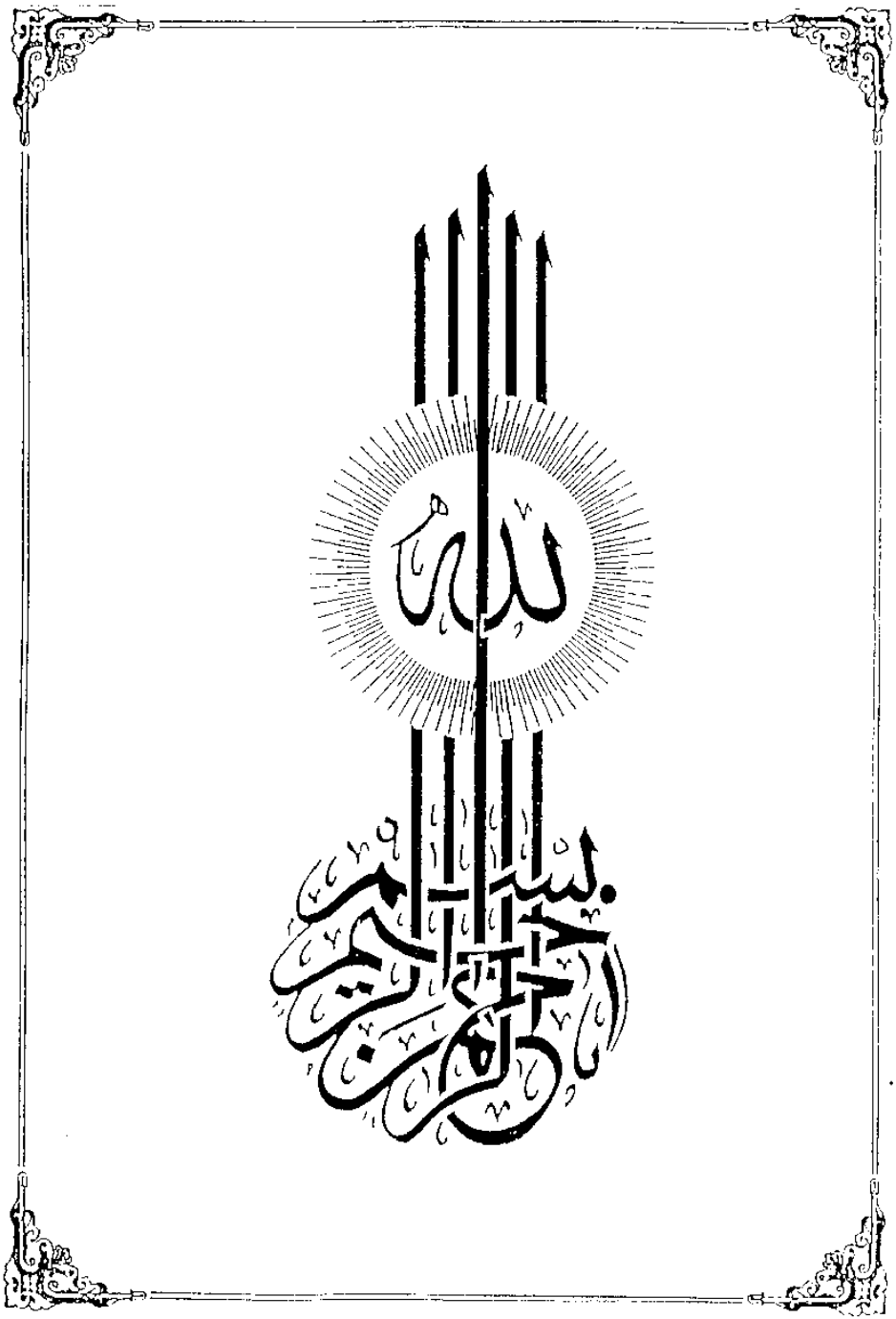

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INTRODUCTION

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Inguinal hernia is a common surgical condition. It is by far the commonest of all external abdominal herniae.

The swelling that the lesion produces which is readily accessible to sight and touch explains why the hernia is early detected by the patient himself.

The multiplicity of the procedures described for the repair of the inguinal canal points to the fact that non of these procedures is completely satisfactory.

In this work, the inguinal hernia is described in general with special reference to the new concepts in etiology, diagnosis, anaesthesia, surgical techniques and postoperative special care.

HISTORICAL REVIEW

Historical Review:

Ancient Egyptian physicians reported the management of hernia by conservative and surgical means. The earliest surviving written records of the practice of surgery are found in Egyptian papyri. These contain no description of surgical procedures for treatment of hernia. The Papyrus Ebres (1552 B.C.) does recommend diet and externally applied pressure in the treatment of inguinal hernia.

According to Ruffer (1921), the mumified body of Ramses V (1157 B.C.) revealed markedly enlarged scrotum that may have contained an inguinal hernia. Engravings on the walls of the Pharoh's and Sakkara tombs showed variable types of hernia (inguinal and umblical).

A phoenician statue of about 900 B.C. showed that bilateral inguinal hernia were treated by application of bandages. (Olch and Harkins, 1964). Ancient Greek terra cotta showed that unilateral hernia also treated by application of bandage. (Zimmerman, 1967).

The procedure of taxis for treatment of hernia was practiced by Praxacoras of Cos, (400 B.C.).

Long before Hippocrates, the Indians, Chineese and Japanese had used cutting and cauterising operation for hernia. Acuepuncture was common between Chineese as a

method of treatment of hernia and Japanese also adopted this method from them (Knootze, 1963).

In the Corpus Hippocratum (460-370 B.C.) the cutting of a hernia had been forbidden except by a specialist.

Celsus in the first century A.D. described inguinal hernia. His operation for hernia consists of simple removal of the hernia sac which was not ligated. He was careful to leave the cord and the testicle intact.

Galen was one of the greatest physicians of all antiquity. He worked in the century after Celsus. His operation for inguinal hernia consisted of ligation of the sac at the external inguinal ring or just below it.

The ancient Hindus apparently treated hernia both surgically and conservatively. Susruta (Fifth Century A.D.), used a cauterising knife in the treatment of hernia. He attempted to reduce the hernia by application of pressure on the swelling, inducing rectal enemas and rice broth diet. Poultices were tried in case the swelling was not reduced.

Paul of Aegina in the seventh century wrote lucidly on hernia. He always sacrified the testicle in his operation. It was well-known fact that the Arab's contribution to medicine is enormous. The Arabian were the first

to introduce system atically arranged illustration in their medical writings.

Al Razi (Ninth Century) was great Arab surgeon. He was well known for his accurate observations and excellent clinical sense. The surgical treatment of inguinal hernia was described in his encyclopedia, Al Mansouri Book 7.

El-Zahrawy (Tenth Century), was another pioneer of medicine and surgery. He was in Europe called Albucasis. His great work was an encyclopedia which he called "El Tassrif". It included detailed description of many operation with illustrative drawings of his own instruments.

He described the inguinal hernia and differentiated between direct and indirect type. He also described the content of the hernial sac whether it is omentum or intestine and gave its diagnostic characters. He mentioned that one type of hernia could reach scrotum while the other could not. He was considered the first to describe strangulated inguinal hernia, which as he mentioned is painful and may lead to death.

His surgical procedure started with manual reduction of the content of the hernia by the patient. The repair for indirect hernia differs from that of direct.

In indirect hernia the incision was placed on the scrotal skin, directed upwards to the inguinal region. The hernia sac was identified and separated from the tunica and tissue around. Then the sac was ligated at a possible level and was cut out (Herniotomy).

In direct type the incision placed on the groin skin The sac identified, and reduced by a special reducer and not excised at all. He sutured the defect from which the sac emmerged and that was the first attempt in the history to do herniorrhaphy. (Hussain et al., 1977).

William of Salicet-Lombardy (Thirteenth Century) was the first surgeon after Celsus who refused to remove the testicle in his operation for hernia. His student Lanfranc opposed operating for inguinal hernia, because the mortality rate was very high and the cure rate very low, Instead, he advised trusses and bandages as palliative measures.

Guy de Chauliac (Fourteenth century) wrote a treatise on hernia. His operation consists of freeing, ligating then cauterising the ligature end of the hernia sac. The testicles were sacrificed.

Pierre Franco (1500-1561) contributed to the advance of the surgical treatment of strangulated hernia. His method for the release of strangulation was to introduce

a probe between the bowel and sac. The constricting band was then cut on the probe, so as not to injure the intestine.

Ambroise Pare (1510-1590) simply ligated the sac by twisting a gold wire about the cord and sac to prevent further descent of bowel into the hernia.

The first to differentiate between inguinal hernia and femoral hernia was Casper Stromayr (Sixteen Century). For the treatment of indirect inguinal hernia although he cleverly removed the sac at the level of the internal ring, yet he followed the old method of excising the cord and testicle. In direct hernia, he simply excised the sac only leaving the cord and testicle undisturbed.

Percivall Pott (1714-1789) a surgeon in St. Bartholomew's hospital in London published "A treatise on Ruptures", and refused many of the old theories concerning its aetiology and methods of treatment based on these theories. He also described and for the first time the congenital hernia. The injection treatment of hernia was started in (1826) by Pancoast of Philadelphia. He injected tincture of iodine into the sac.

In the ninteenth century, there were great advances in the anatomy of inguinal region and in the antisepsis.

Sir Astley Cooper (1768-1841) was a genius who provided many of the pieces of the anatomic puzzle of hernia. He had studied the problem of hernia and the anatomy involved more thoroughly than any single contributor.

Cooper gave the first description of the transversalis fascia and so named it. Also he was the first to describe properly the internal ring. He gave a clear account on the inguinal canal. Morever his description of the superior pubic ligament which is later named after him, added valuable advancement to the surgical practice of inguinal hernia. The iliopubic tract, a derivative from the transversalis fascia, was recognized and described by Cooper.

A description of Hesselbach's triangle became available through the studies of Franz Kaspar Hesselbach (1759-1816).

Francois Poupart was the first to describe Poupart's ligament in Paris.

Antonio Scarpa (1747-1832) was another contributor to the growing knowledge of hernia. He described Scarpa's fascia in 1821.

Mc Vay (1942) described accurately the relationship of the transversalis fascia to the inguinal ligament.

Prior to the antiseptic-aseptic era, nearly every operative wound was followed by infection and possibly septicemia. The discoveries of Louis Pasteur (1882-1895) led to the eventual recognition of the relationship between wound infection and bacteria. Lister's concept of antisepsis was followed by Koch's doctrine of asepsis and the introduction of steam sterilization by Von Bergman in 1886. There were a number of surgeons made a notable advances in hernia surgery in late decades of 19th century.

Vincez Czerny in Germany (1877) described an operation which consisted of ligation and excision of the sac at the external ring. He also sutured the pillars of the external ring around the cord.

It is to Henry O. Marcy (1871) of Boston that the modern era of hernial surgery is credited. He was the first to emphasize the importance of the obliquity of the inguinal canal as the basis of its integrity. He devised and published his operation which is based upon an understanding of the physiology and anatomy of the inguinal region.