بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

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بالرسالة صفحات

لم ترد بالأصـــل

Comparative Study Between the Use of Bassini's Repair and Bilayer Patch Device In the Repair of Primary Groin Hernia Type III

Thesis

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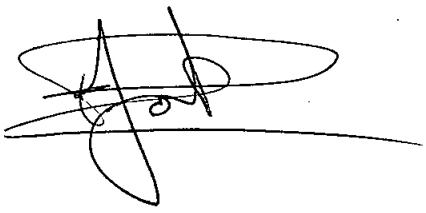

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INTRODUCTION

INTRODUCTION

Inguinal herniation (Greek "hernios", offshot or bud), (in Latin hernia means a rupture or tear) presenting as a bulge in the groin, was memorialized in stone by the ancient Greeks and was mentioned in an Egyptian papyrus of 1500 B.C[1].

A hernia may be defined as a protrusion of sac of peritoneum together with extraperitoneal fat through a defect in the abdominal wall, through which they don't normally pass and contains structures normally present inside the abdomen[2].

Hernias occupy a good deal of surgical time and account for about 10-15% of all surgical procedures[2].

The true incidence of inguinal hernia is not known. However, it was claimed that the overall incidence in adults in the Western Countries varies between 10-15%. The male to female ratio is (12 : 1). The incidence varies between 5 and 8% in the age group 25 to 40 years old. Hernia is present in 45% or more of males at 75 years of age and older[3].

Surgical Anatomy of the Inguinal Region

The groin is the junctional area between the lower abdomen and the upper thigh. For proper orientation, the groin is referred to as the surgeon views the patient on the operating table. The pubis and superior pubic (Cooper's) ligament are medial; the epigastric vessels and transversalis fascial condensation at the internal ring are lateral; the anterior femoral sheath, iliopubic tract and inguinal ligament are inferior, and the transversus abdominis aponeurosis and its arch are superior[4].

The inguinal canal passes obliquely through the anterior abdominal wall, and extends from the deep inguinal ring to the superficial inguinal ring[2]. The inguinal canal is about 4 cm long and contains structures which form the spermatic cord which are Three arteries (testicular, cremasteric and the artery of the vas deferens), Three nerves (ilioinguinal, genital branch of the genitofemoral nerve and sympathetic fibers) and Three structures (pampiniform plexus of veins, vas deferens and reminant of the processus vaginalis and lymphatics)[5,6].

The canal is formed by the descend of the testes from the posterior abdominal wall during early development and then by somatic growth in later life. The anterior wall is formed by the aponeurosis of the external oblique muscle and reinforced laterally

by the internal oblique muscle. The inferior wall is composed of the inguinal ligament and the expanded lacunar ligament at its medial end. Fibers from the internal oblique and transversus abdominis muscles arch over the roof of the canal (conjoint tendon), and form the posterior wall medially reinforcing the stronger layer of transversalis fascia, which runs across the posterior wall of the canal. The layers of the abdominal wall in the inguinal region are formed, from up to down: skin, subcutaneous areolar tissue and fascia (Camper's and Scarpa's fascia), external oblique muscle and aponeurosis, then spermatic cord and its coverings, transversalis fascia, preperitoneal fat and lastly the peritoneum[7].

The Subcutaneous Layer

Beneath the skin there is the subcutaneous areolar tissue and fascia. Superiorly over the lower chest and epigastrium, this layer is generally thin and less organized than in the lower abdomen where it becomes bilaminar. A superficial fatty stratum (Camper's fascia) and a deeper stronger and elastic layer (Scarpa's fascia) which is attached to the inner half of the inguinal ligament and to the anterior fascia lata of the thigh[8].

External Oblique Aponeurosis

The external oblique aponeurosis is the most superficial of the three-musculoaponeurotic layers that makes up the anterolateral

wall of the abdomen. The fibers pass forward, downward and medially to fuse with musculoaponeurotic layers of its fellow on the opposite side at the midline. Medially the tendinous fibers of the external oblique aponeurosis pass anterior to the rectus abdominis muscle, forming the anterior rectus sheath, fusing with the aponeurosis of the underlying internal oblique aponeurosis. Inferiorly the aponeurosis has a further insertions into the body of the pubis and the pubic tubercle and in this area present a defect (superficial inguinal rig) just above the pubis[8,9].

This ring is triangular in shape and in the males allows the passage of spermatic cord from the abdomen to the scrotum. In the females the round ligament of the uterus passes through this opening (Figure 1).

The superficial inguinal ring is a triangular defect with its base formed by the crest of the pubis and the apex is lateral towards the anterior superior iliac spine and its sides are the crura of the ring. The lateral crus is inferior and the medial crus is superior and the two crura are bound together by intercrural fibres. The margins of the ring gives attachment to the external spermatic fascia[5,6].