Introduction

Since Bassini described his primary inguinal repair in 1887 many advancements and modifications of groin herniorrhaphy and hernioplasty have been described ***(Millikan et al., 2003).***

Inguinal hernia repair is the most frequently performed operation in general surgery, there has been a great upsurge in interest in hernias over the last 15-20 years sparked by the introduction and wide-spread use of prosthetic mesh closely followed by the advent of laparoscopic surgery ***(Martin and Allan, 2005).***

Outcomes of hernia surgery usually focus on recurrence rate, acute and chronic pain, convalescence, outpatient surgery, type of anaesthesia, risk of complications and cost issues. Although groin herniorraphies have been done for more than 100 years, new techniques are continuously being developed, which shows that no procedure is optimum, and hernia specialists continue to strive for excellence ***(Morten et al., 2001)***. However, the effectiveness of the various groin herniorrhaphy procedures remains largely unclarified ***(O'Riordan and Kingsnorth, 1998).***

Despite being a simple operation, groin herniorrhaphy is an example of the challenges that arise in surgery at a time when new technology could change practice and when cost constraints call for documentation of quality of care and cost effectiveness ***(Morten et al., 2001).***

Since the introduction of the Bassini method in 1887, more than 70 types of pure tissue repair have been reported in the surgical literature. An unacceptable recurrence rate, prolonged postoperative pain and recovery time after tissue repair along with our understanding of the metabolic origin of inguinal hernias led to the concept of tension-free hernioplasty with mesh. Currently, the main categories of inguinal hernia repair are the open repairs and the laparoscopic repairs .In the open category, repair of the hernia is achieved by pure tissue approximation or by tension-free mesh repair. The most commonly performed tissue repairs are those of Bassini, Shouldice and to a lesser extent McVay ***(Amid, 2005).***

The tension free anterior repair of inguinal hernia using a mesh; initially described by Zagdoun in 1959 and perfectly clarified by Lichtenstein ***(Chastan, 2005).***

Laparoscopic surgical approaches to the repair of inguinal hernias have shown the advantages of placing mesh in the pre-peritoneal space. Despite those advantages, laparoscopic hernia repairs have been associated with increased cost, longer operating times, and advanced laparoscopic skills. An open pre-peritoneal approach has the benefit of mesh in the pre-peritoneal position without the disadvantages of a laparoscopic procedure ***(Fenogolio et al., 2005).***

However, little is known about the long term effects of the polypropylene mesh on the vas deferens especially regard to fertility. Reconstruction to restore fertility can be difficult secondary to fibrotic reaction. Before undergoing polypropylene mesh herniorrhaphy, men especially of young reproducting age or with a solitary testicle need to be

carefully advised of potential obstruction and compromise to future fertility ***(Shin et al., 2005).***

Most surgeons favour the use of a mesh for open inguinal hernia repair as it has a low recurrence rate. Procedures used mesh frequently are Lichtenstein method, mesh plug repair and the prolene hernia system. The choice of technique may be influenced by the effects on postoperative pain and quality of life. There is not any clinically significant difference in postoperative pain and quality of life between the three types of mesh hernia repair ***(Nienhuijs et al., 2005).***

While polypropylene mesh remains the preferred prosthesis material for hernioplasties, there are some problems with infections, intestinal obstruction and fistulization and migration particularly in immunodepressed patients. A new degradable and reabsorbable material, the procine small intestinal submucosa (surgisis) has been developed for hernia repairs in humans ***(Catena et al., 2005).***

Chronic groin pain is the most common long term complication after open inguinal hernia repair. Traditional surgical management of the associated neuralgia consists of injection therapy followed by groin exploration, mesh removal and nerve transection. The resultant hernia defect may be difficult to repair from an anterior approach. A combined laparoscopic transabdominal preperitoneal hernia repair and open approach for post herniorrhaphy groin pain results in good to excellent patient satisfaction with no perioperative morbidity. It may be the preferred technique for the definitive management of chronic neuralgia after prior open hernia repair ***(Rosen et al., 2006).***

In recent years, Lichtenstein's tension-free hernioplasty has emerged as the gold standard for hernia surgery. However, it entails placement of a mesh and thus is costlier material-wise compared with herniorrhaphies. A new technique of internal oblique aponeurosis flap (IOAF) has been devised by (Jani K.) that incorporates the advantages of Lichtenstein's technique (low recurrence, less pain) without its additional costs. The technique of (IOAF) repair for inguinal hernia is fast, safe and has less material cost compared with Lichtenstein tension-free repair ***(Jani , 2005).***

Hernia surgery has associated with severe pain within the first 24 hours postoperatively. The application of cold or cryotherapy has been in use since at least the time of Hippocrates. The physiological and biological effects from the reduction temperature in various tissues include local analgesia, inhibited edema formation and reduced blood circulation. It was concluded that local cooling is a safe and effective technique for providing analgesia following inguinal hernia ***(Koc et al., 2006).***

Inguinal hernia surgery has entered the realm of evidence-based practice. Recurrence rates alone are no longer the sole criterion of a successful repair and analysis of outcomes will include the incidence and potential seriousness of complications time to recovery of normal activities and cost. Day-case surgery for hernia will continue to increase and open and laparoscopic technique will each find their place in the treatment of hernia. There are likely to be major advances in mesh technology ***(Martin and Allan, 2005).***