
بسم الله الرحمن الرحيم
وَأَنْزَلَ اللهُ عَلَيْكَ
الْكِتَابَ وَالْحِكْمَةَ
وَعَلَّمَكَ مَا لَمْ
تَكُنْ تَعْلَمُ وَكَانَ
فَضْلُ اللهِ عَلَيْكَ
عَظِيمًا
صدق الله العظيم
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# LIST OF ABBREVIATIONS

| Abbrev. | Meaning |
|---|---|
| Aeo | Aponeurosis of external oblique muscle |
| ANOVA | One way analysis of variance |
| ASIS | Anterior superior iliac spine |
| BMI | Body mass index |
| CBC | Complete blood count |
| CRD | Congenital rectus diastasis |
| CT | Computed tomography |
| CV | Concomitant vein |
| DAT | Deep adipose tissue |
| DCIA | Deep circumflex iliac artery |
| DF | Deep fatty layer |
| DIEA | Deep inferior epigastric artery |
| DIEP | Deep inferior epigastric artery perforator flap |
| DIEV | Deep inferior epigastric vein |
| DSEA | Deep superior epigastric artery |
| DVT | Deep venous thrombosis |
| DFSP | dermatofibrosarcomaprotuberans |
| Eo | External oblique muscle |
| Io | Internal oblique muscle |
| M | Muscle |
| MEV | Medial eipigastric vein |
| ML | Membranous layer |
| MUL | Medial umbilical ligaments |
| N.F. | NECRITIZING FASCIITIS |
| NSAIDs | Non steroidal anti-inflammatory drugs |
| PC | Personal computer |

# LIST OF ABBREVIATIONS (Cont...)

| Abbrev. | Meaning |
|---|---|
| PE | Pulmonary embolism |
| PRS | Plication of the anterior rectus sheath |
| PS | Posterior recti sheaths |
| RBS | Random blood sugar |
| RD | Rectus diastasis |
| RL | The round ligament |
| Rm | Rectus muscle |
| RM | Rectus muscle |
| S | Skin surface |
| SAL | Suction assisted lipectomy |
| SAT | Superficial adipose tissue |
| SCIA | Superficial circumflex iliac artery |
| SEPA | Superficial external pudendal artery |
| SF | Superficial fatty layer |
| SFS | Superficial fascial system |
| SIEA | Superficial inferior epigastric artery |
| SIEAV | Superficial inferior epigastric artery vein |
| SSEA | Superficial superior epigastric artery |
| STS | soft tissue sarcomas |
| TRAM | Transverse Rectus Abdominis Musculocutaneous flap |
| U | the urachus |
| UR | umbilical ring |
| US | Ultra-sonography |

# *Recent trends of the umbilical reconstruction*

***Essay***

*Submitted for partial fulfillment of Master Degree in general Surgery*

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# الطرق الحديثة لاعادة بناء السرة

رسالة

توطئة للحصول على درجة الماجستير

فى الجراحة العامة

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# ***INTRODUCTION***

To understand today's patient who seeks body change, we must understand the history of humans, the attitudes they had towards their bodies and the way in which they tried to change them.

The economic status of the environment is often reflected in the dress as well as in the body form of people. Clothes became one of the most important factors in modifying body image to current standards until plastic surgery offered a more permanent remedy for body reshaping ***(Grazer, 1990).***

Abdominoplasty has been one of the most popular plastic surgery procedures performed since it deals with one of the areas of the body liable to change, stretch and store fat, as well as being the one area to affect most the entire appearance of the body and trunk. It has no longer become a mere amputation of the flesh but a whole reshaping of the trunk. In such operation, many surgeons specially general surgeons may remove the umbilicus. In other cases, it may be lost due to post operative complications ***(Matarasso, 1989).***

But being at the center of the abdominopelvic area, the umbilicus became an important anatomical component and landmark in the abdominal wall. It also has a key effect on the esthetic appearance of the abdomen. Its position in the abdominal wall, its shape and depth are important influential factors of beauty and psychological well being, which must be preserved or considered when doing an abdominal reconstructive or esthetic procedure ***(Massiha, 1997 & Baack, 1997).***

The umbilicus is a fibrous cicatrix covered by adherent puckered skin lies a little below the midpoint of linea alba, below it the linea alba is narrow corresponding to the linear interval, while in the supra umbilical portion of linea alba it is broader as the 2 recti diverge from each other (***Rohish RJ et al, 2003).***

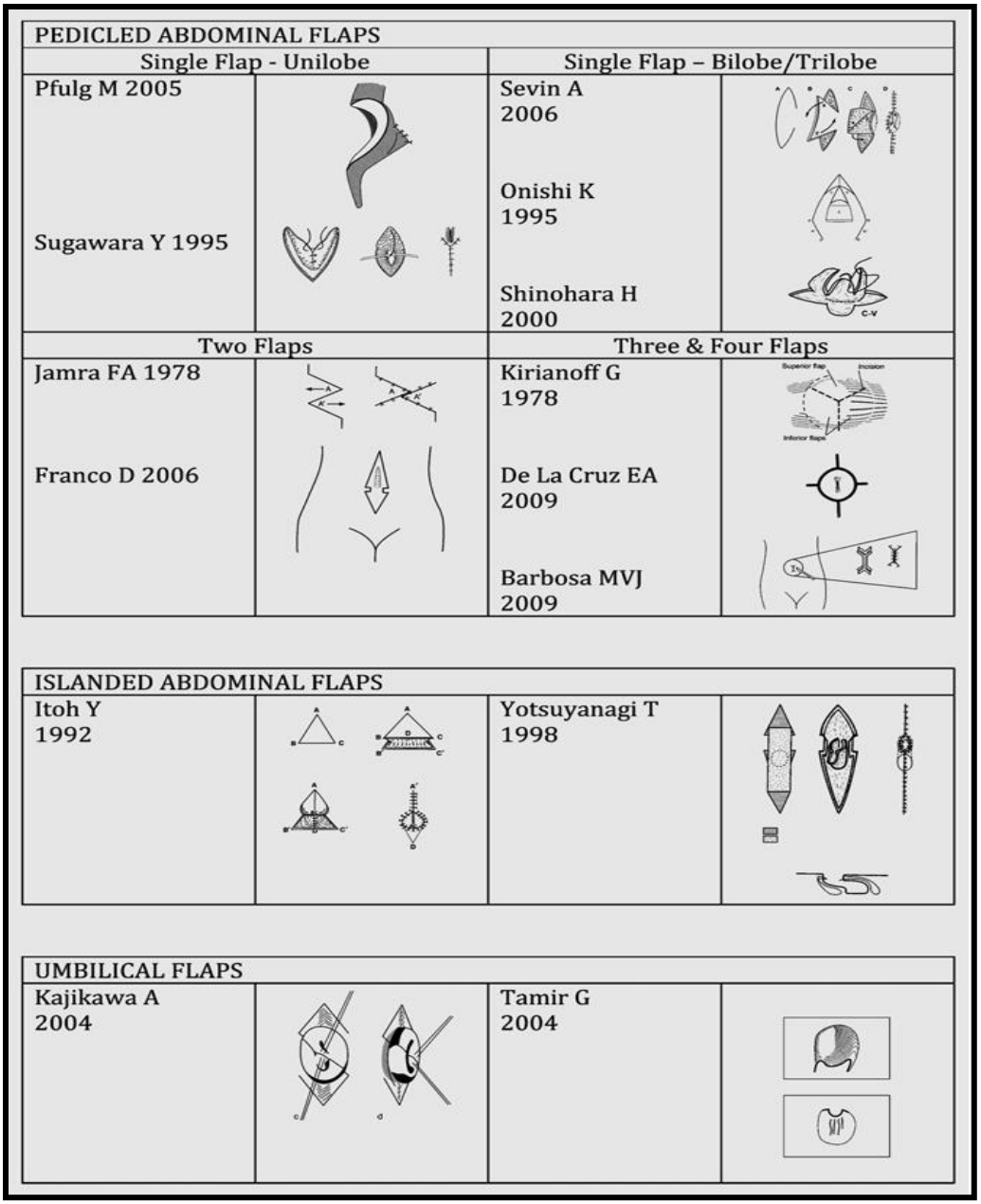
When abdominal wall plastic procedures began to evolve, the excision involved entailed alterations in the umbilical position in the abdomen up to its complete removal, especially by general surgeons even today which causes psychological impacts on patients ***(Matarasso, 1989).***

So plastic surgeons started trials to restore destroyed umbilicus. Reconstruction of a destroyed umbilicus after umbilical herniorrhaphy was first reported by (***Mc Millan in 1955)***.

Nowadays it can be advocated in cases of congenital absence (bladder exstrophy, gastroschisis, omphalocoele, cloacal exstrophy), or after loss due to inflammatory destruction (periumbilical necrotising fasciitis, umbilical sepsis), surgical procedures (umbilical herniorrhaphy, abdominoplasty, laparotomy) or excision for skin cancer ***(M. Pfulg et al, 2005).***

The surgical technique to reconstruct a totally absent umbilicus can follow two different principles. A number of techniques use a small piece of skin or a pedicled flap of variable size that remains attached to the abdominal fascia to create the basis of the umbilicus for a small tubular structure. Sometimes this can be combined with a skin or cartilaginous graft. Other techniques do not rely on the unpredictable vascularisation from the deeper abdominal wall and use the neighboring skin from the abdominal wall to create the depression and/or the tubular structure of the umbilicus. In addition, secondary healing can be used to create the umbilical bottom *(**M. Pfulg et al, 2005).***

***(De la Cruz, 2009)*** shows classification of flaps used in reconstruction of the umbilicus according to complexity from the simplest to the most complicated flaps as shown in ***(Fig. 1).***




***(Figure 1):*** *Different methods for umbiliconeoplasty* ***(De La Cruz et al., 2009).***