

fibrous and inveterate cellulitis (second and third-degree PEFS), in body contouring surgery.
DOI: 10.1097/PRS.0b013e31816b11ff

Francesco D'Andrea, M.D.

Giuseppe A. Ferraro, M.D.

Gian Franco Nicoletti, M.D.

Dipartimento di Scienze Ortopediche, Traumatologiche,
Riabilitative e Plastico-Ricostruttive

Francesco De Francesco, M.D.

Dipartimento di Medicina Sperimentale
Sezione di Istologia ed Embriologia

TESLAB

Seconda Università di Napoli
Napoli, Italy

Correspondence to Dr. Ferraro

Second University of Naples

School of Medicine and Surgery

Department of Orthopedic, Traumatologic, Rehabilitative,
and Plastic Reconstructive Sciences

L. De Crecchio 3

80138 Naples, Italy

giuseppe.ferraro@unina2.it

REFERENCES

1. Scuderi, N., De Vita, R., D'Andrea F., et al. Nuove prospettive nella liposuzione: La lipoemulsificazione. *Giorn. It. Chir. Plast. Ric. Est.* 2: 1, 1987.
2. Zocchi, M. L. Ultrasonic assisted lipoplasty. *Clin. Plast. Surg.* 23: 575, 1996.

3. Illouz, Y. G. History and current concepts of lipoplasty. *Clin. Plast. Surg.* 23: 721, 1996.
4. Rosenberg, G. J., and Cabrera, R. C. External ultrasonic lipoplasty: An effective method of fat removal and skin shrinkage. *Plast. Reconstr. Surg.* 105: 785, 2000.
5. Walgenbach, K.-J., Riabikhin, A. W., Galla, T., et al. Effect of ultrasonic assisted lipectomy (UAL) on breast tissue: Histological findings. *Aesthetic Plast. Surg.* 25: 85, 2001.

The Ideal Female Umbilicus?

Sir:

The aesthetic appeal of differing types of the female umbilicus was assessed by Craig et al. in the January 2000 issue ("In Search of the Ideal Female Umbilicus").¹ A total of 147 photographs were categorized by the authors and then scored by a panel of 21 (predominantly male) examiners. A T-shaped umbilicus was the most prevalent and also scored highest on aesthetic appeal. The presence of hooding was shown to increase the score, whereas a protruding, large, or distorted umbilicus scored lower.

But does this reflect the opinion of the general public? And is there a variation in preference with gender? Are we, therefore, as (predominantly male) plastic surgeons reconstructing the most appealing female umbilicus?

We conducted a survey by setting up a Web site depicting color photographs of five female umbilical shapes (Fig. 1). All photographs were matched for size,

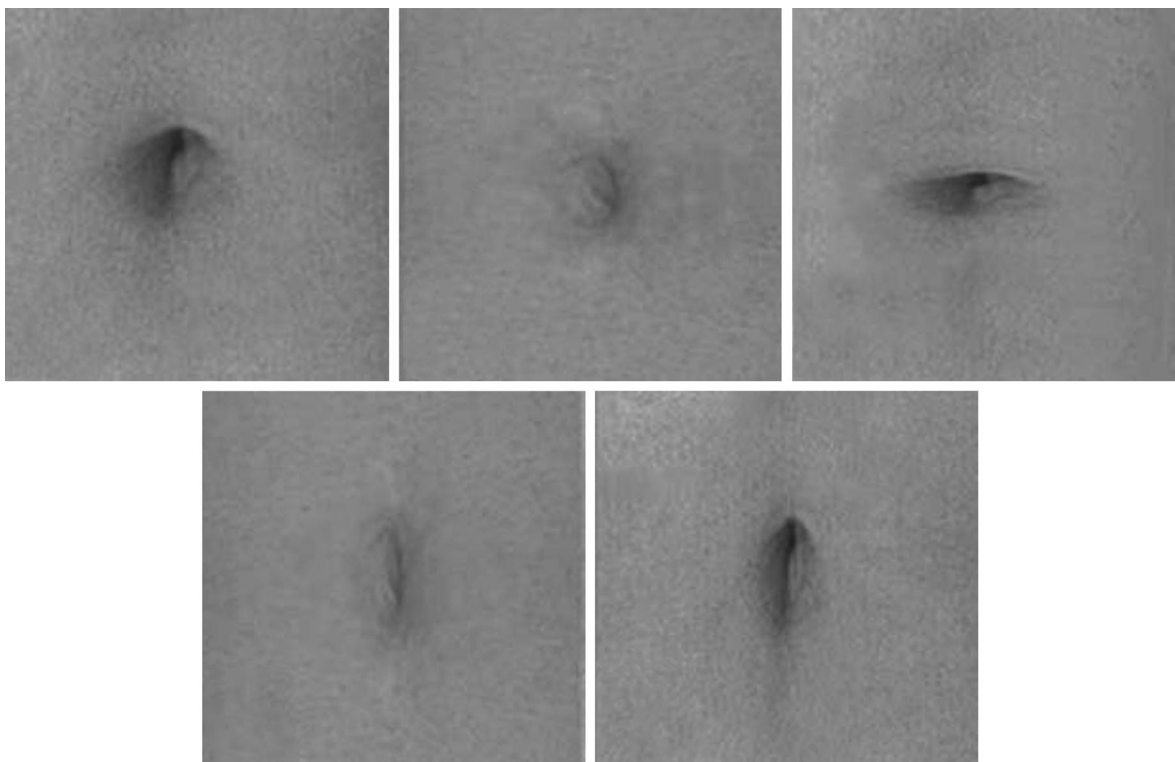


Fig. 1. Color illustrations of the differing umbilical shapes shown here in black and white appeared on the Web site. Participants were required to make a "one-click" choice indicating both their gender and their preference: (above, left) hooded oval; (above, center) oval; (above, right) horizontal; (below, left) vertical; and (below, right) hooded vertical.

Table 1. Survey Responses

Umbilicus Shape	Male Participants	Female Participants
Hooded oval (T-shape)	72 (85.7%)	149 (89.2%)
Oval	5 (6.0%)	0
Horizontal	6 (7.1%)	5 (3.0%)
Vertical	0	0
Hooded vertical	1 (1.2%)	13 (7.8%)
Total	84	167

color balance, and contrast. Protruding, large, and distorted shapes were not included.

We then sent an email to all contacts in our address books, directing them to this Web site. Participants were required to make a simple “one-click” choice on the Web site that automatically generated an email reply indicating both the participant’s gender and the umbilical shape he or she preferred. Participants were also asked to forward the original email to as many of their contacts as possible, thus generating a “chain” effect.

A total of 251 responses (84 male and 167 female participants) were received (Table 1). The hooded oval (T-shaped) umbilicus was overwhelmingly preferred by both male (86 percent) and female (89 percent) participants. The most prevalent was, therefore, also the most popular. Also of interest was the increased preference of female participants for the hooded vertical shape (7.8 percent), compared with just 1.2 percent of males. The second most popular choice among male participants was the horizontal shape (more common after childbirth, with aging or weight gain). The vertical shape without hooding was the least popular, with no participants choosing it. Pearson chi-square testing showed an overall significant difference between male and female preferences ($p < 0.001$).

Despite the overall favorite being the same for both men and women, there was still a significant difference between the two groups. We perhaps have to give this more consideration as a predominantly male profession. This study also demonstrates that the email survey is a simple and useful addition to the plastic and reconstructive surgeon’s research tools.

DOI: 10.1097/PRS.0b013e31816b10ef

Naveen Cavale, M.R.C.S.Ed.

Peter E. M. Butler, F.R.C.S.(I.), F.R.C.S.(Engl.)

Royal Free Hospital
London, United Kingdom

Correspondence to Dr. Cavale

Royal Free Hospital
108 Widdenham Road
London N7 9SH, United Kingdom
naveen@cavale.org

REFERENCE

1. Craig, S. B., Faller, M. S., and Puckett, C. L. In search of the ideal female umbilicus. *Plast. Reconstr. Surg.* 105: 389, 2000.

A Versatile Technique for Repositioning of the Umbilicus in Abdominoplasty

Sir:

Umbilical repositioning is a main step during abdominoplasty. The surgeon aims for minimal visible scars and a natural-looking result.¹ Several techniques have been described, but none of them completely satisfy the aesthetic targets in all patients. Evidence of scar or retraction with umbilical stenosis may occur.² The use of Y or double-Y cutaneous incisions has improved aesthetic results.^{3,4} We introduce a versatile technique for umbilicoplasty: an elliptical vertical incision of the umbilical skin and a double-opposing Y incision on the abdominal flap, to create a stable, natural-looking umbilicus.

A prospective, open-label study was performed. Forty patients underwent abdominoplasty using the present technique for umbilicus repositioning. Patient age ranged between 24 and 63 years (36 women and four men). Body mass index ranged from 26 to 47 kg/m² (mean, 33 kg/m²). Patient satisfaction and postoperative results were evaluated over a 12-month follow-up period. A modified 5-ml syringe was used to assess the depth and volume of the umbilical stalk. Variations in depth between 1 and 12 months were statistically compared using the Wilcoxon test.

The umbilical skin is sharply incised vertically. The umbilical pedicle blood supply is preserved. The umbilical dermis is attached to the abdominal rectus fascia in four cardinal points with polyglecaprone 25 4–0 suture. In patients with a thin habitus, it is important to plicate the periumbilical fascia sufficiently to create an inverted umbilicus. The elliptical umbilical island is tightened against the tensed abdominal fascia without distortion. The site of umbilicus repositioning is determined by its projection on the abdominal flap. A small, double-opposing Y cutaneous incision is made in this point. The vertical size must be approximately the same as that of the original umbilicus. The angle and size of the four lateral incisions can be modified according to the width we want to obtain. Defatting is performed through the double-opposing Y incision. The umbilical skin is sutured to the surrounding abdominal skin with 4–0 nylon sutures. Four of these sutures are left longer and tied over a paraffin gauze patch to ensure deep umbilicus positioning.

In all patients, an umbilicus with adequate depression was created. In one case, de-epithelization of the umbilical skin occurred and healed spontaneously in 2 weeks. After 12 months, no significant changes in shape, dimension, and appearance were observed. All patients were pleased with the final result. No cicatricial umbilical stenosis occurred, and no statistical significance was found comparing mean depth variations between 1 and 12 months (10.67 ± 1.34 ml and 10.4 ± 1.19 , respectively; $p = 0.0543$).

This technique gives a natural depth appearance, ensures optimal position, pulls scars deeply, avoids visible scarring, and allows achievement of different



Fig. 1. Preoperative view of the umbilicus.



Fig. 2. Twelve-month postoperative view.

shapes according to the patient's habitus (Figs. 1 and 2). Any umbilical size, in either obese or thin patients, can be created with this method. The double-opposing Y incision reinforces the vertical shape, creates natural umbilical dimpling, and prevents stenosis with stable results. This technique is easy to learn and simple to perform, effectively hides scars, and gives a youthful appearance to the umbilicus.

DOI: 10.1097/PRS.0b013e31816b11cd

Marco Mazzocchi, M.D., Ph.D.

Luca A. Dessy, M.D.

Andrea Figus, M.D.

Department of Plastic Surgery
University "La Sapienza"
Rome, Italy

Correspondence to Dr. Mazzocchi
Via Portuense 331
00149 Rome, Italy

mazzocc@mclink.it; marco.mazzocchi@uniroma1.it

DISCLOSURE

The authors did not receive any financial support for this study, nor were they in any way commercially involved with any company.

REFERENCES

1. Akbas, H., Guneren, E., Eroglu, L. O., and Uysal, A. A natural-looking umbilicus as an important part of abdominoplasty. *Aesthetic Plast. Surg.* 27: 139, 2003.
2. Schoeller, T., Wechselberger, G., Otto, A., et al. New technique for scarless umbilical reinsertion in abdominoplasty procedures. *Plast. Reconstr. Surg.* 102: 1721, 1998.
3. Masshida, H., Montegut, W., and Phillips, R. A method of reconstructing a natural-looking umbilicus in abdominoplasty. *Ann. Plast. Surg.* 38: 228, 1997.
4. Cannistrà, C., and Pecorelli, E. Umbilical restoration in abdominal dermolipectomy: A simple double-Y, double-M technique. *Aesthetic Plast. Surg.* 23: 364, 1999.

Reduction of the Hypertrophied Clitoris: Surgical Refinements of the Old Techniques

Sir:

Several pathologies can cause clitoris hypertrophy. It can be caused by hormones (such as in congenital adrenal hyperplasia), drugs, or tumors, or it can be idiopathic.¹ The incidence varies, from one out of 10,000 newborns for congenital adrenal hyperplasia² to a total of three cases described in the literature for isolated clitoral hypertrophy.¹

The average clitoris should be less than 5 mm wide and 16 mm long. A measure of more than 35 mm² is suggestive of clitoral hypertrophy.^{1,2}

When a hormonal pathology has been demonstrated, hormonal replacement therapy is necessary, followed by surgical reduction of the clitoris hypertrophy (performed for psychological and cosmetic reasons). The surgical goal is to achieve a normal-appearing clitoris while preserving function (sensitivity).

The following techniques have been described: total amputation of the clitoris,³ bending of the clitoris and attachment of it to pubic bones,⁴ dorsal amputation of the corpora cavernosa,^{5,6} severing of the clitoris at its root and reattachment of the glans as a composite graft,⁷ ventral⁸ shortening, and excision of the corpora cavernosa, which is eventually associated with island excision of preputial skin.⁹ Preservation of a neurovascular pedicle, used by Kogan et al.¹⁰ and Papageorgiou et al.,¹¹ is fundamental in maintaining the sensitivity of the glans clitoris.

Table 1 presents the specific disadvantages and possible complications of each technique (such as viability of the remaining tissue, preservation of sensation, and difficult or unacceptable shaping).

On the basis of a deep study of these techniques, we treated a single case in which we individuated and combined the most important points of other techniques with our refinements, to obtain a better cosmetic result and to preserve clitoral sensitivity (Table 2).

A 19-year-old girl, diagnosed at infancy with non-salt-wasting 21-beta-hydroxylase deficiency (nonclassic congenital adrenal hyperplasia) and treated since childhood with hormonal therapy, presented as an adult with isolated clitoris hypertrophy, which she found socially embarrassing.

In adulthood, the phallus was about 2 cm long (Fig. 1) and increased to about 3.5 cm with arousal.