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1

THE PERFECT UMBILICUS

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New Westminster, BC

Umbilicoplasty is a component of abdominoplasty to achieve a nice, natural looking umbilicus with minimal scarring. Various techniques have been attempted to achieve the natural looking umbilicus.

One hundred cases of umbilicoplasty have been done and are presented with good and pleasing results.

SURGICAL PROCEDURE: A 10 to 12 cm. position is maintained from the suprapubic area to the umbilicus. At that level, an inverted u-shaped incision is made for the desired umbilicus. The original umbilicus, in the meantime, is tacked to the abdominal fascia to shorten the pedicle. The abdominoplasty flap is secured to the suprapubic incision to stabilize the skin. After the u-shaped incision is made in the abdominal flap, defatting of the umbilicus and u-flap is done. The original umbilicus is sutured onto this flap, burying the suture, securing the umbilicus. This u-shaped flap becomes a tongue which is sutured to the inferior component of the original umbilicus to give a natural hood. This completes the repair and steri-strips and compressive dressings are applied. The rest of the body contouring procedure is then completed.

One hundred cases have been done. Complications seen: 2 inferior separations, closed by secondary closures. Infections – nil. Keloid formation and hypertrophic scar formation less than 1% – treated by Kenalog injection. Revisional procedures – nil. Overall satisfaction over 99%.

SUMMARY: This technique has shown predictably good and very natural looking umbilicus, complimenting the abdominoplasty procedure for aesthetic body contouring surgery.

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AESTHETIC ABDOMINOPLASTY AND LIPOSUCTION IN NORMAL WEIGHT, OVERWEIGHT AND OBESE PATIENTS

A Gomez-Jimenez

Bathurst, NB

The concept of aesthetic abdominoplasty nowadays is not restricted to normal weight patients but also to overweight and obese patients when tumescent liposuction is employed in combination with the surgery. There are essential goals to achieve and specified steps to follow during the intervention in order to obtain the best possible result especially in overweight and obese patients.

These goals are to correct muscular diastases, cutaneous excess and eliminate all abnormal fat deposits and contour deformities in the patient. 1. Flat abdomen with anatomical contour, 2. Small elliptical umbilicus, 3. Short pubis 4. Well established waist and balanced and proportional hips.

In this proposed technique the specific steps to be follow to achieve these goals are as follows.

Initially with the patient in a prone position:

A. Dorsolombar tumescent liposuction to address such deformities in: sub scapular areas, posterior flanks, posterior hips, saddle bags, internal thighs so as to give us the major correction to obtain the well established waist and balanced hips.

B. Lipoinjection after centrifuging the fat, either in the trochanteric fossa or the gluteal region to correct deformities or enhance gluteus projection. In a supine position:

A. Abdominal tumescent liposuction to address the fat excess in the epigastrium, flanks, supra costal areas and anterior hips and anterior thigh.

B. Abdominoplasty and muscle plication to give a flat abdomen, short pubis and small elliptical navel.

C. Final liposuction to establish the anatomical subtle contour of the abdomen.

This extensive procedure gives to our patients, regardless of their weight, a very high degree of satisfaction, with low morbidity.

3

AUTOINFLATION OF SALINE BREAST IMPLANTS

W Peters

Toronto, Ontario

Spontaneous autoinflation of saline breast implants is rare. During the past 7 years, 5 saline implants have presented with significant autoinflation. This developed: a) Progressively over 23 years with a Simaplast implant, b) After 10 years with 3 leaflet valve implants, and c) Slowly over the first 4 years with a leaflet valve implant. The % volume gain was 88, 49, 45, 19, and 19. The etiology was different for the two types of implants. The Simaplast implant was likely injected with a hypertonic filling solution. This would have created an osmotic gradient, facilitating auto expansion by diffusion. The implant solution remained clear and transparent, and there were no detectable levels of glucose, uric acid, or albumin. By contrast, autoinflation of the leaflet valve implants likely resulted from mechanical alterations of the valve. This type of implant is known to have a high deflation rate, and deflations are frequently partial. The same mechanism that causes partial deflations may also allow larger molecules from the implant pocket to pass through the valve into these implants. This would create an osmotic gradient, which would allow water to enter the shell by diffusion. The fluid in these leaflet valve implants was yellow, very viscous, and turbid. It contained elevated levels of glucose and uric acid. During the past decade, 4 different theories have been proposed to explain the etiology of autoinflation. The current study supports only two mechanisms: a hypertonic filling solution and alterations of the valve mechanism.

4

PRACTICAL ANATOMY OF THE LIPS AND PERIORAL AREA PERTAINING TO FILLER INJECTIONS

C DeLorenzi

Kitchener-Waterloo, Ontario

The surgical anatomy of the lips has been well described in the literature. The recent surge in patient demand for lip augmentation with filling agents has resulted in need for practical anatomy of the area from a different perspective. The author injected fresh non preserved human cadavers with hyaluronic acid fillers and then conducted a series of anatomical dissections of the perioral area and photographed the results. This presentation shows the practical anatomy of the perioral region specifying the

anatomic locations of various muscles, nerves, fat pads, and blood vessels which are pertinent to attaining a successful outcome in clinical practice. The practical anatomy of the sensory nerves to the lips is outlined in detail to simplify local anaesthesia of the lips without causing distortion effects.

5 FIFTY YEARS EXPERIENCE IN PLASTIC SURGERY

L Chasmar
Saskatoon, Saskatchewan

6 SALVAGE OF THE FAILED HAIR TRANSPLANTATION

J Fisher
Nashville, Tennessee

Probably no other area of aesthetic surgery has produced so many bad results as hair transplantation. However, it is one of the more common procedures in males. A successful hair transplant should look totally natural and age appropriate. Successful correction of previously unsatisfactory hair transplants requires a careful analysis. In patients with old plug grafts, excision and recycling of the hair, creating small follicular grafts, is often successful. However, in selected patients with an abnormally low hairline, it may be necessary to excise the anterior scalp. A forehead lift is performed and the hairs from the plug grafts are recycled. Varying techniques for forehead fixation will be presented.

7 SAFETY ISSUES IN FACIAL REJUVENATION

G LaTrenta
New York, New York

Recent emphasis on medical "errors" has prompted many hospitals, medical schools and professional societies to create more education on patient safety. As far as facial rejuvenation surgery is concerned pre-operative, operative and post-operative management have been found to be equally important in avoiding "errors" and concomitant surgical pitfalls. Both possible as well as probable medical and surgical "errors" in dealing with facial rejuvenation patients will be discussed, as well as a clear, concise discussion of avoidance and risk reduction will be discussed in the hopes that better outcomes can be achieved.

8 PERIORBITAL REJUVENATION IN THE 21ST CENTURY

P Heden
Stockholm, Sweden

A dramatic change in periorbital rejuvenation surgery has occurred during the last decades. This does not only relate to the surgical techniques, but also to a much more holistic approach to the periorbital region. A multitude of different treatment options must be considered and mastered today and surgeons can no longer only consider surgical techniques for periorbital rejuvenation. Non-surgical techniques such as Hyaluronic Acid Fillers and Botox treatment must also be discussed with the patient. Thus the patient communication and preoperative diagnosis is much more complicated and complex than as it was done in the 1980's. At that time it was common that blepharoplasty was considered a fairly easy procedure that involved removal of fat and skin. In the 21st century we know that this is no longer appropriate as the forehead-eyebrow position and the midface ptosis also have to be addressed during a blepharoplasty consultation. Assessment of eyelid tonus and eye globe position is of paramount importance, but was frequently neglected in the 1980's. Aggressive fat removal has also been relatively common in blepharoplastic surgery, but today fat removal is much more conservative. It is even common that prominent fat bulges are treated without fat removal and instead fat transposition or repositioning is considered. This much more conservative approach to periorbital fat has resulted in less skeletonised appearance in the eyelid region and thus a much more natural rejuvenation. Midface elevation was extremely uncommon in the 1980's, but is today one of the most common aesthetic facial procedures we perform. Many different approaches to midface elevation have been described and developed throughout the years and temporal, lower lid or intraoral approaches all have their merits and drawbacks. Midface elevation addresses the important blending of the

cheek-lid junction and frequently has more rejuvenating effect in the lower eyelid than lower lid blepharoplasty. Endoscopic approaches or assistance can facilitate these techniques, but is not necessary for the isolated midface lift. Fixation of both forehead and midface has been extensively discussed in the literature, the author has developed a simplified fixation technique that has been used in a large number of patients during the last decade. In this presentation periorbital diagnosis, alternative techniques, their advantages, disadvantages and limitations and surgical techniques and tricks will be presented.

9 TREATMENT OF THE POST BARIATRIC PATIENT

F Eaves, III

10 MODIFIED LATERAL BROW LIFT

R Warren
Vancouver, BC

The aesthetics of eyebrow shape and position have changed through history – at times downturned laterally and at other times, highly arched. In the current era, the desired shape of the brow is low medially and rising laterally. This is the opposite of the aging brow which becomes ptotic laterally. Endoscopic browlifting has been successful at raising the medial and central brow by releasing galeal attachments and allowing frontalis action to take effect. Unfortunately, endoscopic browlifting has been less successful at maintaining a lateral brow lift, thus not achieving the aesthetic ideal. The Modified Lateral Brow Lift addresses the problem of lateral brow relapse by fixating the elevated brow with deep temporal sutures and by full thickness scalp excision. The removal of galea and skin replicates the stability achieved by classical open brow lifting, but involves a relatively short incision with endoscopic assist. Although the incision crosses the temporal crest line, proper dissection preserves the neurovascular bundle which contains the deep branch of the supra orbital nerve. Stable elevation of the lateral brow has been demonstrated in difficult situations such as previously failed endoscopic brow lifts, and in cases with unfavorable brow morphology: lifelong downturned eyebrows, and excess loose skin.

11 VERTICAL BREAST REDUCTION

E Hall-Findlay
Banff, Alberta

There are many different approaches to reducing the scars in mammoplasty surgery. This presentation will outline one of these methods.

For reduction mammoplasty, the author uses a vertical skin resection pattern along with a medial pedicle for the nipple-areolar complex. The medial pedicle is easy to inset and results in an elegant curve in the lower pole of the breast. The vertical pattern uses a vertical ellipse for the resection which cones the remaining breast giving better final projection. There is very little reliance on the skin as a brassiere and the shape is longer lasting than the Wise pattern skin resection which usually relies on a horizontal resection pattern and the skin brassiere to hold and maintain the shape. Liposuction is not used for volume reduction but it is used to tailor the shape surrounding the parenchymal remodeling. The Wise pattern is a good pattern to design the remaining breast parenchyma rather than using it for a skin brassiere pattern.

The vertical mastopexy uses similar principles for removing skin. The pedicle for the nipple-areola complex can be lateral, superior or medial. The new shape is maintained by rearranging the breast tissue rather than relying on the skin brassiere. The vertical approach can also be combined with breast implants for an augmentation-mastopexy.

12 INTRAOPERATIVE SEQUENCING FOR AUGMENTATION/MASTOPEXY

J Fisher

There are several reasons to consider a mastopexy at the time of augmentation. These include ptosis and contour irregularities of both a primary and secondary origin. Selecting the correct operation follows a continuum

of care from a periareolar to a vertical to an inverted-T mastopexy. As a general rule, the greater the disparity between breast volume and excess skin envelope, the longer the incisions required. As in all procedures, proper patient selection is critical for a successful outcome. Indications for a periareolar mastopexy include minimal ptosis, contour irregularities and secondary deformities in previously augmented patients. In patients with more extensive ptosis, a periareolar mastopexy can lead to inadequate nipple elevation and an unsatisfactory shape. In these patients, a vertical or limited inverted-T mastopexy are required. Intra-operative sequencing allows for appropriate adjustments between the skin envelope and implant volume.

13

STATISTICAL COMPARISON OF THE FOUR MOST COMMONLY PERFORMED MIDFACE AND NECK PROCEDURES

G LaTrenta

New York, New York

The vast majority of plastic surgeons either perform SMAS plication, SMAS ectomy, extended SMAS, or composite mid facial/neck techniques for the deep plane facial rejuvenation. The author has quantified 3 clinical indications for facial rejuvenation in 100 conservative female patients in the hope of statistically evaluating these techniques. These indications include:

- 1) Musculofacial laxity
- 2) Skin folding
- 3) Ptotic soft tissue mass

Statistical analysis at 1 year demonstrates that all patients, regardless of the technique performed, had statistically ($P < 0.005$) significant improvement for all 3 indications, and that no single technique demonstrated statistically significant results over the other three.

14

BREAST AUGMENTATION WITH SHAPED FORM STABLE BREAST IMPLANTS

P Heden

Stockholm, Sweden

Breast augmentation surgery with implants has been performed for more than four decades. Throughout this period a majority of implants have not been form stable. Since the mid 1990's form stable breast implants have been available. A constantly increasing demand for these devices has been seen during the last decade. This relates to several advantages such as much more control of the final shape of the breast, less irregularities and wrinkling, and the possibility to customise breast augmentation better than ever before. These implants are available in a number of different sizes and therefore the selected implant can be adjusted to biological prerequisites and patient demands.

With the introduction of the ALLERGAN STYLE 410 MATRIX system of form stable anatomical breast implants breast augmentation surgery has become much more customised than ever before. However, the large variation of implant shapes also has made implant selection more complicated. Surgeons can no longer select breast implants arbitrary based on their feelings and experience and must employ a totally new way of implant selection. In the traditional breast implant selection a volume is frequently estimated by the surgeon based on his experience and knowledge. In the new era of breast augmentation with form stable implants it is necessary to decide the ideal implant base width. Taking into consideration patient's measurements, desires and amount of glandular tissue the surgeon and patient together decide for an ideal implant type and in the end this results in a specific implant volume. Thus, this new way of selecting form stable breast implants is reversed compared to the old traditional volumetric filling techniques.

The selection of ideal form stable breast implant can be separated into different steps where the first important step is to get the feeling for the patient's desires. Communication with the patient should be done in front of a mirror displacing the breast medially and laterally to demonstrate borders of the new breast. Desired new breast width usually aims for a 2-3 cm inter mammary distance and a lateral protrusion not exceeding the anterior axillary line. Discussing projection of different implants could be done with the aid of a calliper. It should be remembered that breast tissue is

compressed by the implant and thus the calliper should be pushed into the breast tissue when showing projection of the different implants within the Matrix system. The next step in implant selection is to judge envelope and glandular characteristics and it should be remembered that the implant must be adjusted to these factors. When implant width is exceeding the breast width higher risk for implant palpability is present. If the envelope is too lax for the projection of implant selected either a mastopexy must be considered or more projecting implant may be necessitated. One of the most important parts of selection of ideal form stable implants is to define ideal implant width. The ideal width of the implant is equal to the width of the desired breast width minus the tissue cover. The tissue cover should be measured with a pinch test at the estimated medial and lateral border of the implant. As a pinch is a double fold of skin and subcutaneous tissue thus the medial plus lateral pinch should be divided by two to provide information about tissue cover. Subtracting the tissue cover from ideal breast width provide information on ideal implant width. The implant height is related to upper thoracic shape, patient desires and position of the breast vertically on the chest wall. When the appropriate implant has been selected together with the patient, but not before this stage, an external sizer can be tested in a sports bra to provide the patient with more understanding for what is expected from the procedure.

After having selected the ideal implant and communicated this with the patient the next step in performing a successful breast augmentation with a form stable implant is to perform accurate preoperative markings. Two important questions should be answered during these measurements. First the vertical position of the implant on the chest wall and secondly how much skin that is needed between the nipple and the inframammary fold. To answer these questions it is essential to consider the dimensions of the breast implant and amount of glandular tissue. The vertical position of the implant should be adjusted so the nipple projects centrally on the implant leaving approximately half of the implant above the nipple projection point and half of the implant distal to this. A simple and good way to predict the nipple position after the augmentation is to ask the patient to place their hands on top of their head. Then this should be followed by drawing a line from the nipple to the sternum, the so called NS-line. In the midline half the implant height is the measured distally indicating the position of the lower pole of the implant (ILP).

The amount of skin needed between the nipple and the inframammary fold is the second parameter that should be answered during preoperative markings and this is related to the width and projection of implant, the amount of glandular tissue and characteristics of the envelope. Thus higher projecting implants with larger base width needs more skin between the nipple and the inframammary fold. The "Akademikliniken Method" of marking patients preoperatively, when performing an augmentation with form stable implants, take these parameters into consideration and the method will be described in detail.

There is no doubt that the use of the MATRIX System of form stable anatomical implants has resulted in a high degree of patient satisfaction and a low frequency of complications. MRI investigation after long-term implantation performed in our unit has recently also shown a very low frequency of ruptures (0,3 %). Patient satisfaction after long-term implantation was also very good when measuring different parameters of quality of life. Results of these clinical studies will be presented.

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