One-stage technique for shortening the vertical wound in vertical-scar mammaplasty

Sir,
In her technique of vertical-scar mammaplasty, Lejour uses two layers of sutures to close the vertical skin wound. The deep layer is closed with 3/0 absorbable sutures. Starting from the lowest point and progressing superiorly, these sutures elevate the skin by attaching it to the gland at a higher level. This results in the formation of folds or pleats along the vertical suture line giving the impression of shortening of the vertical wound. The superficial layer is closed with a subcuticular running nylon suture, which transforms the folds into fine wrinkles, thereby converting the pseudo-shortening into true shortening of the wound. It is the combination of these two stages that effects the overall shortening of the vertical distance between the areola and the lower end of the wound.

In our technique, the wound-shortening effect is achieved in a single stage. Starting from the highest point and progressing inferiorly, the wound is closed with subcutaneous 3/0 absorbable figure-of-eight sutures. When tied, the four anchoring points (1, 2, 3 and 4) of each suture gather at an intermediate point (P) (Fig. 1). This results in the distances 1-3 and 2-4 being reduced. The cumulative effect of repeating this process to the lowest point of the wound results in an overall reduction in the initial wound length of up to 50%, depending on the distance between points 1 and 3 and 2 and 4 and the number of figure-of-eight sutures along the entire length of the wound. In the case illustrated, the wound length was reduced from 7.5 cm to 4.5 cm, a reduction of 40%. The subcuticular running nylon suture is used to improve approximation of the wound edges (Fig. 2) and not for further shortening of the wound.

We recommend this technique as a reliable method of closing vertical mammaplasty wounds, especially when reduction in wound length is an objective. The meticulous application of sutures can reduce the wound length by up to 50%.

Yours faithfully,
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Reference

Breast reduction in the ‘sitting-up’ position

Sir,
There is a gross displacement of important anatomical landmarks of the breast when a patient lies in the supine position. In large breasts the nipples shift laterally and the inframammary folds lose their definition. As a consequence, most plastic surgeons carry out marking for breast reduction with the patient in a sitting position, in the ward or in the anaesthetic room, before the patient is anaesthetised. This is quite an uncomfortable and embarrassing experience for the patient.
Figure 1—The patient is positioned in the 70° sitting-up position. Both arms are abducted to 90° and secured to the arm-rests with tubi-grip, seen prior to final draping. Marking of the breasts is carried out as a sterile procedure.

We carry out the marking of the breast and perform breast-reduction surgery with the anaesthetised patient in the sitting position to avoid these problems (Fig. 1). This facilitates the planning of the operation, the surgery and the final assessment of the result of surgery before completion of the procedure. After intubation, the patient is positioned in the ‘sitting’ position (70° flexion at the hip joint). The arms are abducted at 90° and immobilised on the arm-rests with tubi-grip. The head is immobilised on a head ring in an upright position. After skin preparation and draping, the operative markings are made as a sterile procedure. This adds approximately 7 min to the operation time. The operation is performed under normotensive anaesthesia.

We have used this position for bilateral reduction mammoplasty for the last 16 years, both in the National Health Service and the private sector. We have had no complications related to the sitting position. We recommend this position for both bilateral and unilateral reduction mammoplasty, and believe that the aesthetic outcome is improved by keeping the anatomical landmarks of the breasts in relatively normal undisplaced positions during the operation. We have found the sitting position especially useful for correcting asymmetry of the breasts.

Yours faithfully,
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Pre-existing venous disease and the gastrocnemius muscle flap

Sir,
The gastrocnemius muscle flap is well recognised for coverage of the anterior aspect of the knee following the exposure of a knee prosthesis and associated infection. Indeed, many surgeons now routinely use this flap when carrying out revision arthroplasty because of the high incidence of wound breakdown and exposure.

The gastrocnemius muscle flap is very robust, with the medial and/or lateral bellies being raised on the medial or lateral sural vessels, and can easily cover the anterior of the knee and lower thigh. It can also be raised as a free flap. Difficulties in raising the flap are rare. In 85% of cases the muscle bellies have a type 1 blood supply (single pedicle to each belly), while the remainder have a type 2 supply (double pedicle to the belly). Isolated high-grade stenosis of the sural artery has been described as the cause of flap failure on one occasion.

We have recently used this flap to cover a primary knee replacement at the time of insertion. The patient was 74 years old, with a history of varicose veins and deep venous thrombosis affecting the leg in question. Previous knee surgery had left a medial scar that could not be included in the arthroplasty incision. There was concern that the skin bridge between the scars would necrose, exposing the prosthesis. For this reason it was decided to excise the intervening skin and immediately reconstruct the defect with a gastrocnemius muscle flap. After total knee arthroplasty, the medial belly of the gastrocnemius muscle was exposed in the standard manner through a posterior midline incision. The muscle was found to be contracted and fibrotic, making it difficult to transpose, and it only just reached the midline anteriorly below the patella (Fig. 1). The flap was covered with a skin graft and fortunately healed without incident.

A review of the literature on the use of the gastrocnemius muscle did not reveal any difficulty in raising a useful healthy flap unless there was an anomalous vascular pedicle. We advise caution in the use of this muscle in patients with pre-existing venous disease, and surgeons should be prepared to use an alternative or additional flap if necessary.

Yours faithfully,
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