

vertical crowbars and includes a round central command that controls the circumference size. The superior handling of the crowbar allows the surgeon to make the circumferential rotation (Fig. 4).

In summary, demarcation of the nipple-areola complex for aesthetic and reconstructive mammoplasty can be simplified by the use of a scalpel caliper. The caliper provides accurate circumferential cutting of regular skin edges with agility and comfort.

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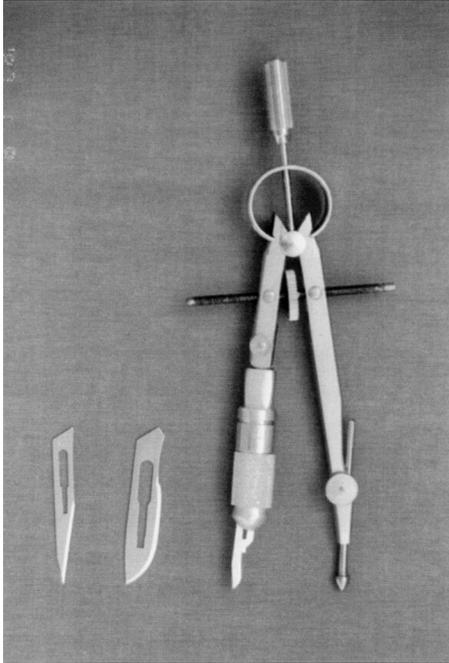


FIG. 3. Scalpel caliper with surgical blades.

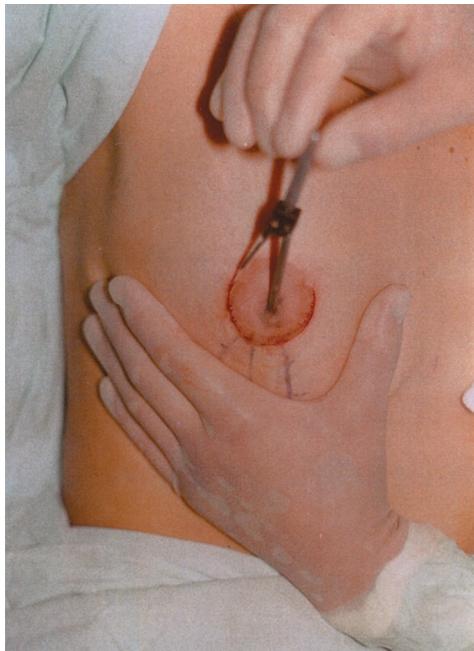


FIG. 4. Demarcation of the nipple-areola complex using the scalpel caliper.

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TRAM FLAP BREAST RECONSTRUCTION AND WEIGHT FLUCTUATIONS: IT IS ALIVE!

Sir:

After the introduction of the transverse rectus abdominis musculocutaneous (TRAM) flap in 1982 by Hartrampf et al.,¹ breast reconstruction entered a new era, whereby recreation of natural-looking and natural-feeling breasts was possible with the added bonus of an aesthetically pleasing donor site. According to Hartrampf himself,² the natural softness and shape of the reconstructed breast give the patients a feeling of "realness."

TRAM flap reconstruction and its variants (pedicled, double-pedicled, supercharged, turbo-charged, free tissue transfer, muscle-sparing, deep inferior epigastric perforator flap, and so on) have become the accepted standard by which all other methods of breast reconstruction are judged.

Autologous tissue for breast reconstruction, and especially the TRAM flap, is believed to be incorporated into the patient's body and to behave as part of the body following any weight fluctuations. To our knowledge, however, there have been no reports of this effect in the international literature.

A 76-year-old patient presented to our clinic in 1993, 5 years after right breast mastectomy, for delayed breast reconstruction. Preoperative consultation suggested that the patient was a good candidate for pedicled TRAM flap breast reconstruction. The patient underwent the operation successfully, and the results were most pleasing (Fig. 1, left).

Four years after the operation, the patient suffered the loss of her husband, which had a profound psychological effect on her. The patient became depressed and sustained massive weight loss (approximately 40 kg) within a period of 2 years. When we saw the patient again, 7 years after the operation, to our amazement the flap had followed her body weight change, keeping in good symmetry with the contralateral breast (Fig. 1, right).

This is the first such reported case in the international literature. It offers conclusive evidence to something that we all already knew anecdotally: the autologous breast is alive. Once incorporated, it grows and shrinks with the patient as if it were a natural breast.

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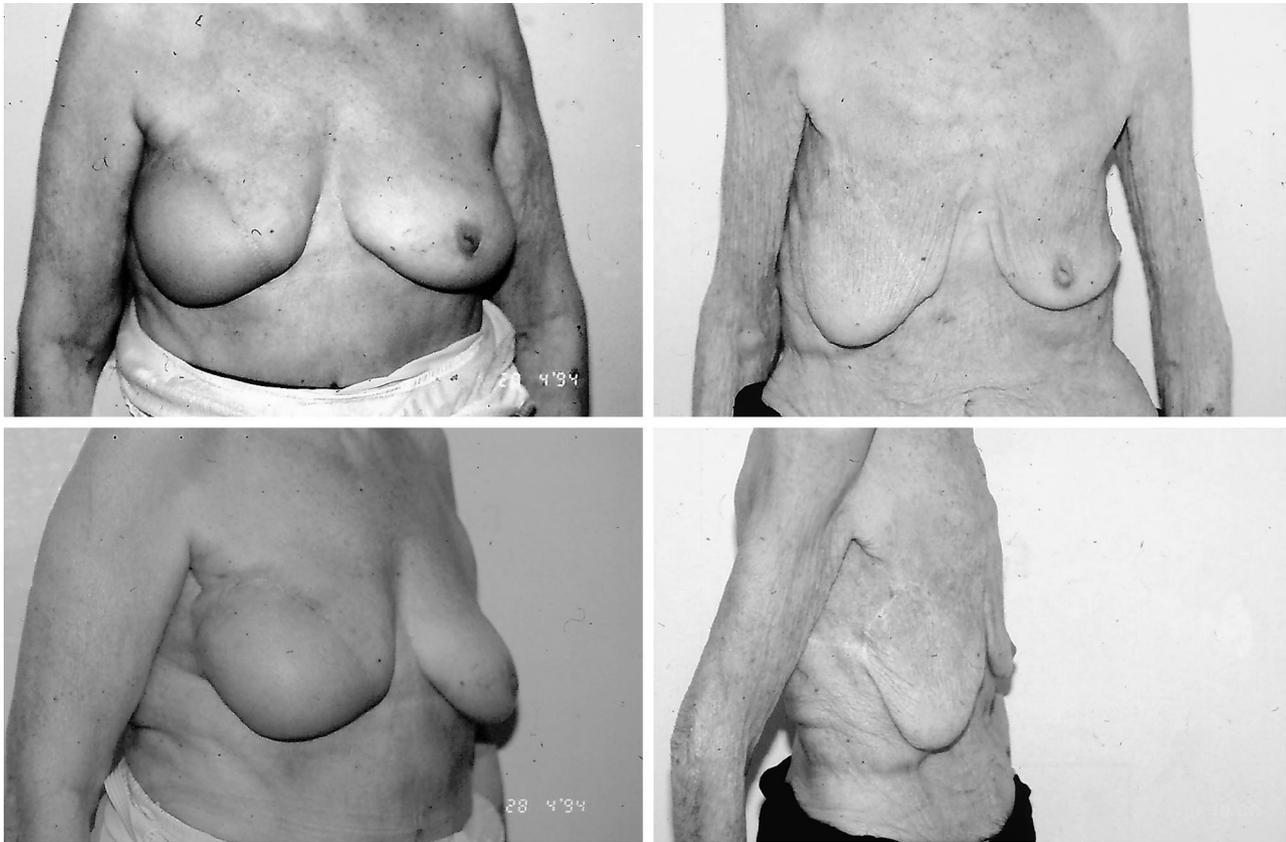


FIG. 1. (Left) Frontal and right oblique views of the patient 1 year after the operation. (Right) The same patient 7 years later.

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SICKLE CELL TRAIT: A RISK FACTOR FOR FLAP NECROSIS

Sir:

We would like to alert others to the possibility of flap necrosis in patients with the sickle cell trait. We report a case of a 19-year-old Latin-American female with bilateral macromastia. She presented for a reduction mammoplasty due to symptomatic upper back pain. The patient was 5 feet 5 inches, weighed 175 pounds, and wore a 38FF bra (Fig. 1). Past medical history was significant for sickle cell trait and a positive family history of sickle cell anemia (her mother was affected). She had not had any complications or hospitalizations secondary to her sickle cell trait.

The patient underwent an operation under general anesthesia. Her breasts were infiltrated with 500 cc of tumescent solution containing 1000 cc of LR, 30 cc of 1% lidocaine, and 1 cc of epinephrine 1:1000. A bilateral reduction mammoplasty was performed utilizing a superomedial pedicle. Intraoperatively, all flaps were at least 1.5-cm to 2-cm thick with adequate perfusion. A total of 1245 g was removed from the right breast and 1235 g of tissue was taken from the left breast. At the end of the procedure, both nipples appeared viable.

According to the anesthetic record, she had excellent

systemic oxygen saturation throughout the procedure (range, 99 to 100 percent). She was adequately hydrated, having received 2000 cc of crystalloid over 3.5 hours. Her body temperature ranged between 35.8°C and 36.8°C.

On postoperative day 3, she was noted to have some discoloration of the skin flaps. There was epidermolysis involving the lateral flap of the right breast (5 × 7 cm) and epidermolysis (1 × 2 cm) involving the superior edge of the areola and the vertical incision of the left breast (Fig. 2). The remaining skin flaps were viable. The decision was made to start hyperbaric oxygen, which ultimately began on the fifth postoperative day.

Fourteen days after her initial operation, she was brought back to the operating room for revision of the necrotic portion of her flaps. The skin flaps and nipple pedicles appeared to have been dissected properly at the first operation and were of ample thickness. All areas of necrosis were resected, and the skin flaps were reapproximated. She healed nicely after this revision (Fig. 3).

In the medical literature, there are surgical standards to be followed when dealing with patients with sickle cell disease. These guidelines are aimed at preventing a sickle cell crisis. However, patients with sickle cell trait have not been thought to require any special surgical or anesthetic precautions. These patients are regarded as normal.

Due to the patient's complication, we investigated her hematological status. Hemoglobin electrophoresis showed changes consistent with sickle cell trait. Her values were as follows: hemoglobin A, 57.2 percent (normal, 97 to 99 percent); minor fraction of adult hemoglobin, 3.6 percent (nor-