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ALTERNATIVE ROUTE FOR THE INSERTION OF BREAST IMPLANTS IN MAMMARY RECONSTRUCTION: A TECHNICAL NOTE

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Experience has shown that mammary reconstruction with a silicone gel implant inserted at the time of a radical or modified radical mastectomy is a safe procedure in experienced hands, especially when the overlying tissues are of good quality and have not been irradiated.

However, many patients present at a later stage when the mastectomy scars have been soundly healed for several years and in whom the overlying skin has been subjected to radiotherapy.

In these cases it may be difficult and unwise to attempt to insert a silicone prosthesis into the treated breast because of serious potential circulatory problems with the overlying skin and the real risk of extrusion of the prosthesis.

Since the opposite breast (previously untreated) may itself require surgery such as subcutaneous mastectomy, reduction or augmentation mammaplasty or simple mastopexy, we propose that during this operation it can prove a relatively simple matter to insert a silicone prosthesis into the previously treated breast through a tunnel made anterior to the sternum.

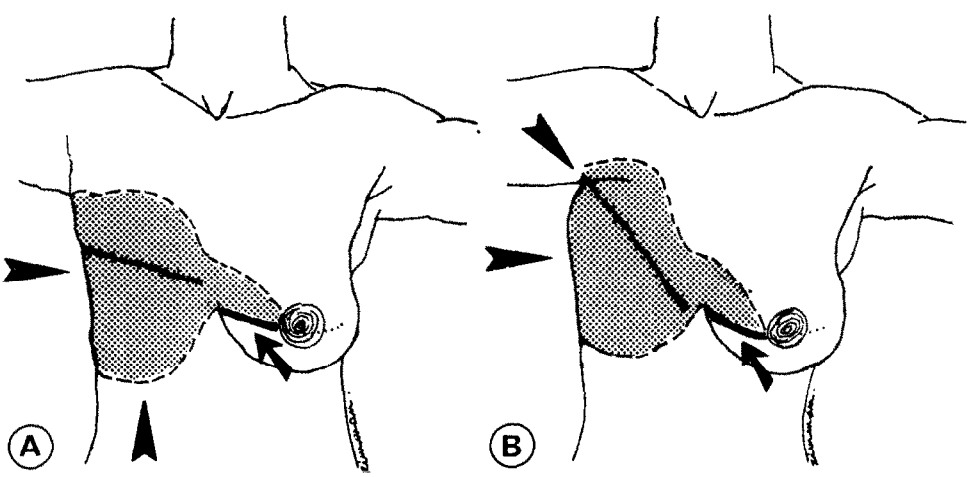

FIG. 1. Diagram to show the forces acting on an implant after a modified radical mastectomy, A, and a radical mastectomy, B. The diagram also shows the modification to the shape of the pocket that must be created following these two very different operations.

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TECHNIQUE

An incision is made in the opposite inframammary sulcus, through which simultaneous subcutaneous mastectomy, mastopexy or reduction mammaplasty can be performed. The posterior aspect of the gland is dissected upwards at its medial edge and from this point a tunnel 8 cm wide (Fig. 1) is created in front of the sternum through to the other mastectomised side. The tunnel is made by a combination of blunt and sharp dissection (Fig. 2) taking special care when freeing the post-mastectomy scar. After careful hemostasis, a gel-filled silicone prosthesis of the desired size (from 200 cc to 305 cc) is inserted (Fig. 3). We have found it wise to modify the shape and the size of the

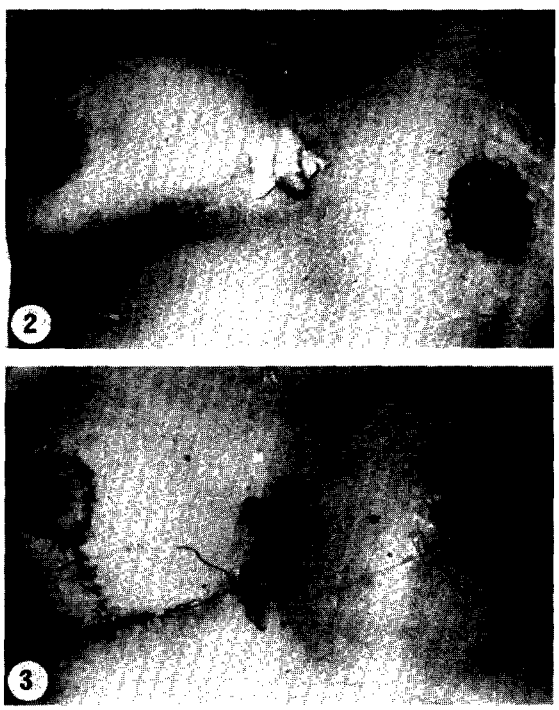

FIG. 2. A six-day postoperative result: after a radical mastectomy. The breast has been reconstructed by an implant and the nipple-areola complex by a free graft. In this case only a submammary incision has been used on the right side.

FIG. 3. A ten-day postoperative result. After a left radical mastectomy, the breast has been reconstructed by insertion of a prosthesis and reconstruction of the nipple areola complex. A reduction mammaplasty has been done on the right side, from which a tunnel was dissected to insert the implant into the left breast.

new "pocket" according to the type of the original operation, since the lines of force exerted on the implant will vary in direction. Following both a radical and a modified radical mastectomy, a silicone prosthesis will tend to shift medially, but whereas after a radical mastectomy (Fig. 1B) the forces are exerted medically and downwards, after a modified radical mastectomy with subpectoral implantation, the tendency of the implant is to "ride up" (Fig. 1A). Accordingly we have devised two different types of pocket for our silicone implants. Both extend across the medial axillary line, but after a modified radical mastectomy (Fig. 1A) the undermining must extend 6 to 8 cm below the opposite submammary sulcus. After a radical mastectomy (Fig. 1B) the dissection is extended higher on the chest wall and descends only 3 or 4 cm below the submammary sulcus.

To avoid medial displacement of the prosthesis, some absorbable 2/0 sutures are placed between the subcuticular dermis and the pericondrium over the costal cartilages. Then the submammary incision is closed according to the method used for the remaining breast. The nipple-areola complex can then be reconstructed with an areolar mesh-skin graft taken from the opposite side as a one-stage procedure (Robles *et al.*, 1979).

REFERENCE

ROBLES, J. M., ZIMMAN, O. A. and LEE J. C. (1979). Reconstructing a finely nodular areola. *British Journal of Plastic Surgery*, **32**, 238.