British Journal of Plastic Surgery (1975), 28, 177-180

SURGICAL TREATMENT OF GYNAECOMASTIA

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BENIGN enlargement of the male breasts carries a feminine stigma and gives rise to considerable embarrassment. Surgical technique for correction must be designed to leave as few traces of female appearance as possible. Scars must be inconspicuous and away from the inframammary fold. The chest wall should become as masculine as possible and the type of operation will depend on the patient and the size of his enlarged breasts.

SMALL AND MODERATE DEGREES OF GYNAECOMASTIA

When breast enlargement is moderate, particularly in young individuals where the skin is elastic, the hypertrophied gland can be excised through the standard areolar incision of Webster (1946) (Fig. 1). A transareolar incision is reported by Pitanguy (1966) and this will have approximately the same advantages. If the areola is very small or the breast is relatively large, the exposure can easily be improved by extending the incision radially from the areola for a couple of centimetres laterally. This is seldom necessary but the final scar will still be very inconspicuous. Excision of skin or replacing the nipple is unnecessary as the skin quickly adapts to the reduced volume.

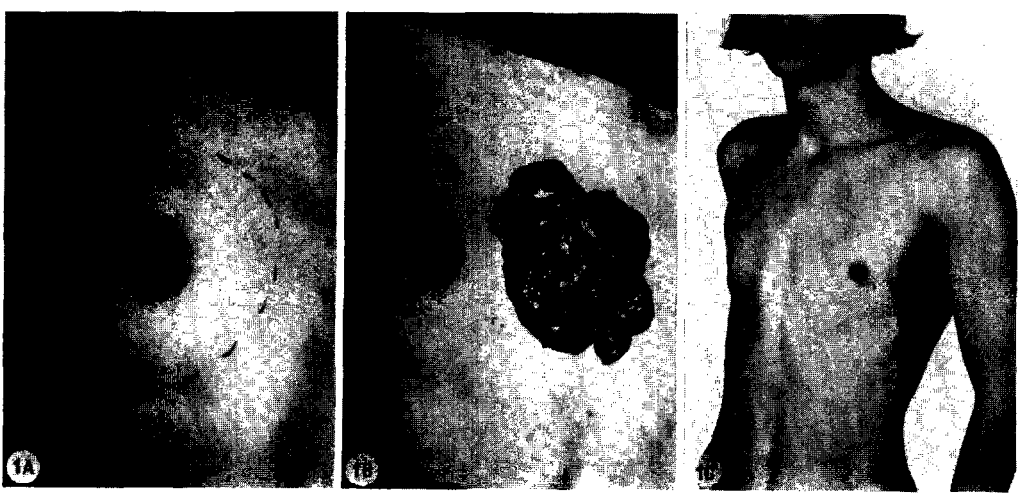

FIG. 1. A and B, Moderate degree of gynaecomastia, excised through an areolar incision. C, Post-operative appearance.

LARGER DEGREES OF GYNAECOMASTIA

When the breast is unduly large or the patient is older and the elasticity of the skin is reduced, skin will have to be excised together with the breast tissue. The scars should be situated in positions where hypertrophy and keloid formation is least likely (Letterman and Schurter, 1972). Even more important, they should be as much as

possible unrelated to the size and shape of a female breast. Placing the scar in the submammary fold (Ivy, 1948; Maliniac, 1950; Wray *et al.*, 1972) is inadvisable since after ablation of the breast, it is very obvious and suggests a fold and a heaviness which the operation was carried out to erase. The radial extension of an areolar scar has been advocated by Letterman and Schurter where ablation is carried out as a modification of the lateral oblique method of mammaplasty (Dufourmentel and Mouly, 1961). Letterman and Schurter suggest that the nipple should be advanced medially as well as upwards, when skin excision is performed. More masculine features would be obtained however by keeping the interareolar distance fairly wide, thus suggesting a slightly broader chest; the lateral incision is also less conspicuous as it is more on the side of the chest wall.

I have found a modification of Hollander's (1924) method of reduction mammaplasty to be most useful (Fig. 2). The markings are in principle similar to Hollander's or Dufourmentel's method where the skin is excised from the lateral quadrant and the nipple is rotated upwards to its new position. To secure the circulation to the nipple a vertical dermis pedicle is included. This is kept very thin by removing most of the subcutaneous tissue, after which it can easily be folded into position. The entire breast tissue is removed through the lateral exposure and no difficulties are encountered while removing the medial part. The skin will usually have sufficient elasticity to compensate for the reduced volume at the medial aspect of the breast, where excision of skin is unnecessary.

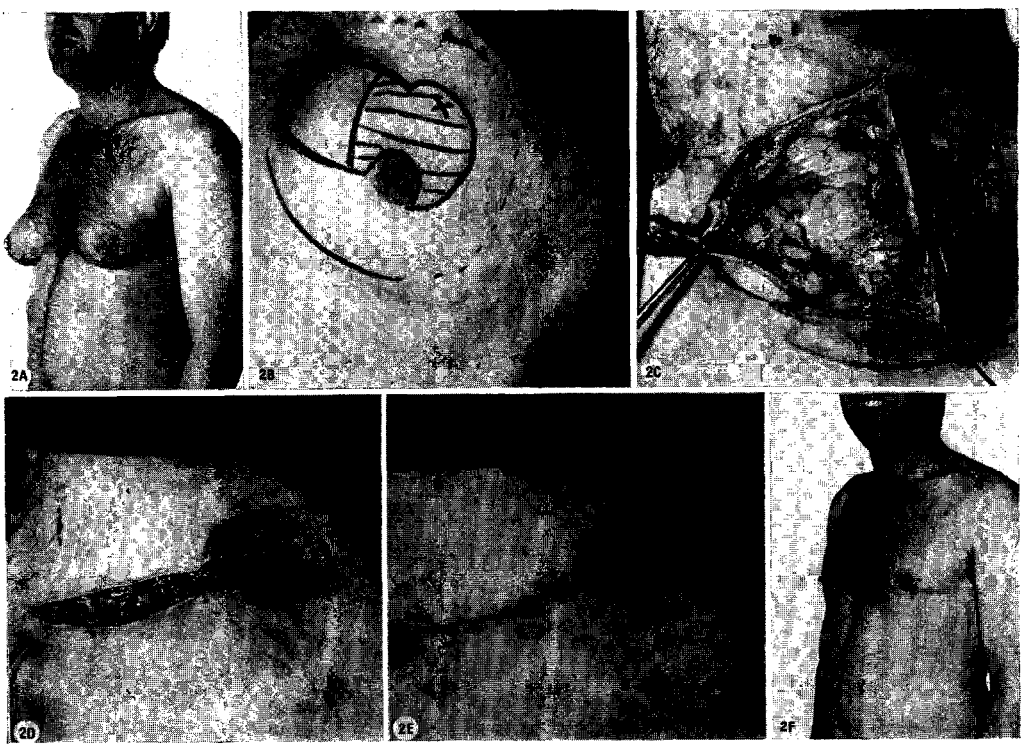

FIG. 2. Modified Hollander's method for large breasts. A, Pre-operative appearance. B, Pre-operative markings. C, Hatched area de-epithelialised and excision of breast tissue proceeding under dermal pedicle. D, Soft tissues closed and drain inserted. E, Final closure. F, Post-operative result.

Very Large Breasts

When the breasts are large or pendulous, as after great weight loss, the problem of gynaecomastia is a problem of panniculectomy, and the main abnormality to deal with is the excess of skin around the nipple, forming a ptotic breast.

Reduction mammaplasty after Strömbeck's method (1964) as advocated by Kamper *et al.* (1972) is of limited value as the flaps when brought together tend to create a protuberance, and the scar in the previous site of the submammary fold tends to create

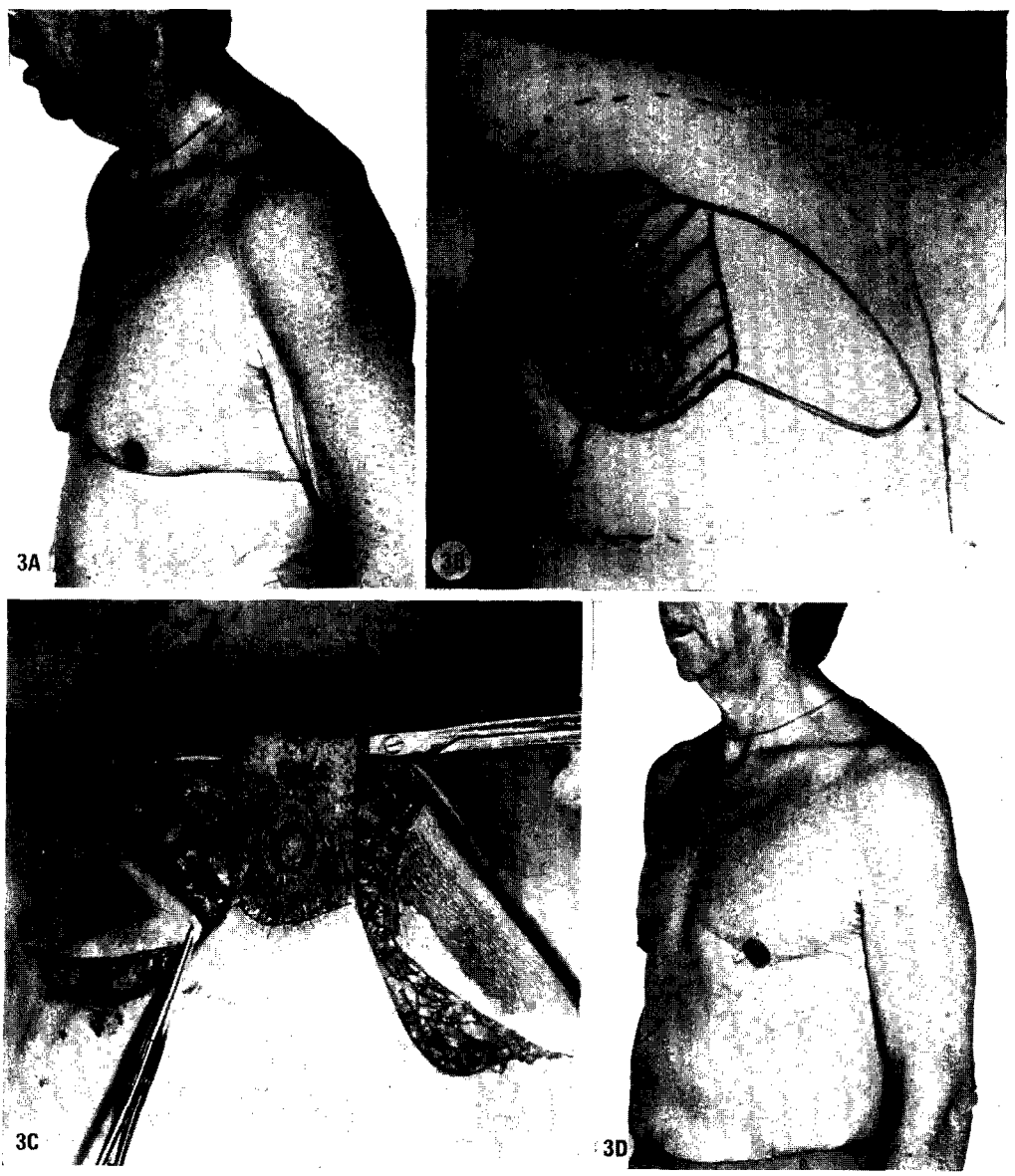

FIG. 3. Modified Pers and Bretteville-Jensen method for large pendulous breasts. A, Pre-operative appearance. B, Pre-operative markings. C, De-epithelialised vertical pedicle raised to complete excision of the skin, fat and breast tissue. D, Post-operative result.

the impression of the shape of a breast. When large amounts of skin and subcutaneous tissue have to be removed a more usual procedure is a total excision including breast tissue, nipple and skin, the nipple being replaced as a free graft (Wray *et al.*, 1974). A similar effect with better quality to the nipple and less suggestive scars can usually be obtained by modifying the method of Pers and Bretteville-Jensen (1972) where the nipple is carried on a vertical dermal bridge with virtually no subcutaneous fat (Fig. 3).

The operation is planned with the upper line of excision through the chosen site for the nipple. This should be fairly high up and far from the midline; a point on the 4th rib 10 to 12 cm from the midline is usually suitable. The lower incision is adjusted according to the amount of skin to be removed. The vertical pedicle does not create an undue prominence and circulation to the nipple is safe. Experience with the horizontal scars is favourable, and after a year they tend to be relatively inconspicuous. If by any chance the circulation to the nipple is inadequate due to an extremely long pedicle, one should not hesitate to excise the whole pedicle, suture the skin edges together as usual and replace the nipple as a free graft on the remaining semicircular shaved area on each side of the suture line.

Discussion

As always when performing a cosmetic operation the primary aim of the operation should be clear. When treating gynaecomastia this is to eliminate the feminine features; furthermore, the operations should be flexible, in so far as the findings during the operation allow adjustments in technique.

The methods described follow these principles, and there is a gradual progression from one procedure through the whole armament of techniques ending up with a total excision and free nipple graft which can be carried out as a last resort if necessary.

REFERENCES

Dufourmentel, C. and Mouly, R. (1961). Plastie mammaire par le methode oblique. *Annals Chirurgica Plastica*, **6**, 45.

Hollander, E. (1924). Die Operation der Mammahypertrophie und der Hängebrust. *Deutsche Medizinische Wochenschrift*, **41**, 1400.

Ivy, R. H. (1948). Editorial comment. *Plastic and Reconstructive Surgery*, **3**, 240.

Kamper, M. J., Galloway, D. V. and Ashley, F. (1972). Abdominal panniculectomy after massive weight loss. *Plastic and Reconstructive Surgery*, **50**, 441.

Letterman, G. and Schurter, M. (1972). Surgical correction of massive gynecomastia. *Plastic and Reconstructive Surgery*, **49**, 259.

Maliniac, J. W. (1950). "Gynecomastia. Breast Deformities and their Repair", Baltimore, Maryland: The Waverly Press. p. 174.

Pers, M. and Bretteville-Jensen, G. (1972). Reduction mammaplasty based on the vertical vascular bipedicle and "Tennis Ball" assembly. *Scandinavian Journal of Plastic and Reconstructive Surgery*, **6**, 61.

Pitanguy, I. (1966). Transareolar incision for gynecomastia. *Plastic and Reconstructive Surgery*, **38**, 414.

Strombeck, J. O. (1964). Reduction mammaplasty. In "Modern Trends in Plastic Surgery", p. 237, ed. T. Gibson. London: Butterworth.

Webster, J. P. (1946). Mastectomy for gynecomastia through a semicircular intra-areolar incision. *Annals of Surgery*, **124**, 557.

Wray, R. C., Hoopes, J. E. and Davis, G. M. (1974). Correction of extreme gynaecomastia. *British Journal of Plastic Surgery*, **27**, 39.