

# Surgical treatment of grade III gynaecomastia

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## Summary

Gross enlargement of the male breast with skin redundancy and ptosis cannot be effectively managed by subcutaneous mastectomy alone. A technique is described in which the excess breast tissue and skin are excised along a design which allows the nipple-areolar complex, mounted on a vertical deepithelialised pedicle, to lie in a natural position. A horizontal scar is an unavoidable exchange for this particular operation.

## Introduction

Persistent enlargement of the male breast is a source of embarrassment and distress for which a large number of surgical operations have been described. As long ago as the seventh century AD mastectomy via an inframammary incision was advocated (1). In this century operations include sharp excision through various incisions within or without the areola (2) and, more recently, high-pressure vacuum suction lipectomy combined as necessary with formal local excision (3).

There is, however, no single technique appropriate for all grades of gynaecomastia and in an effort to tailor the technique to the situation a practical classification of gynaecomastia was introduced (4):

- I Minor but visible breast enlargement without skin redundancy.
- IIa Moderate breast enlargement without skin redundancy.
- IIb Moderate breast enlargement with minor skin redundancy.
- III Gross breast enlargement with skin redundancy and ptosis so as to simulate a pendulous female breast.

This classification can be further simplified by grouping I, IIa and IIb together on the basis that, after subcutaneous mastectomy, whatever incision used, the nipple-areolar complex settles in the natural position

without leaving residual skin folds in contrast to group III where, after mastectomy alone, the nipple is distorted and comes to lie lower than the normal position while ugly breast skin folds remain (Fig. 1).



FIG. 1 Subcutaneous mastectomy alone for grade III gynaecomastia leads to unacceptable nipple siting and distortion and residual skin folds.

Although group III gynaecomastia is rare, it poses an awkward surgical problem in that the goal of leaving a normal-looking chest wall with minimal detectable scarring is difficult to achieve. In these cases the surgeon has to accept that mastectomy is inadvisable through an intra-areolar scar, and that when excising a redundant skin envelope the scar must inevitably extend onto the chest wall. One means of overcoming the problem is to perform a standard mastopexy closure after removal of the breast tissue, mounting the nipple-areolar complex on a deepithelialised pedicle, but leaving an unacceptably long and conspicuous anchor shaped scar. A method was devised (5) therefore, whereby the nipple-areolar complex was based on a single, wide, central

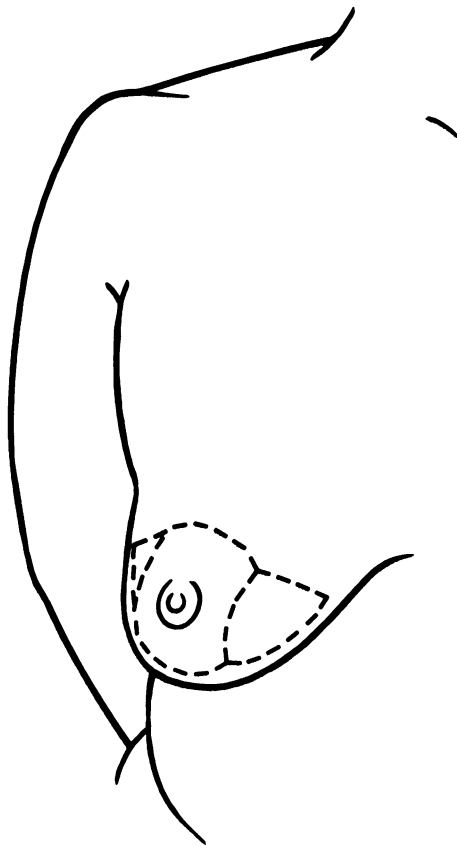


FIG. 2 Preoperatively, a central horizontal ellipse is marked out, including a wide vertical band on which the nipple-areolar complex is mounted.

deepithelialised pedicle before excising the breast through an oblique lateral incision, eventually leaving a long single lateral chest wall scar. The nipple-areolar complex remains at the correct horizontal axis but tends to settle too far laterally. Furthermore, this method does not always remove the skin redundancy over the medial aspect of the breast, is technically demanding and not easy to reproduce reliably.

For the last six patients presenting with grade III gynaecomastia the senior author has used a minor modification of a technique first described for breast reduction (6) and subsequently adapted for gynaecomastia (7) which has proved to be quick, simple and easily reproducible. A central horizontal ellipse is marked out preoperatively, including a wide vertical band on which the nipple-areolar complex is mounted. At surgery the medial and lateral triangles of skin, together with underlying fat and breast tissue, are excised after deepithelialising the vertical bipedicle flap around the nipple and areolar. This provides excellent access and allows the surgeon to sculpt the underside of the skin flap and the periphery of the breast disc in such a way as to avoid the depressed, dish-shaped concavity that can otherwise become apparent after skin closure. The vertical deepithelialised flap not only maintains a vascular perfusion of the nipple-areolar complex but also, during wound closure, folds beneath it to give a good foundation and a natural projection. The one disadvantage in early cases was the construction of a lozenge-shaped nipple with the axis in the longitudinal direction, but by incor-

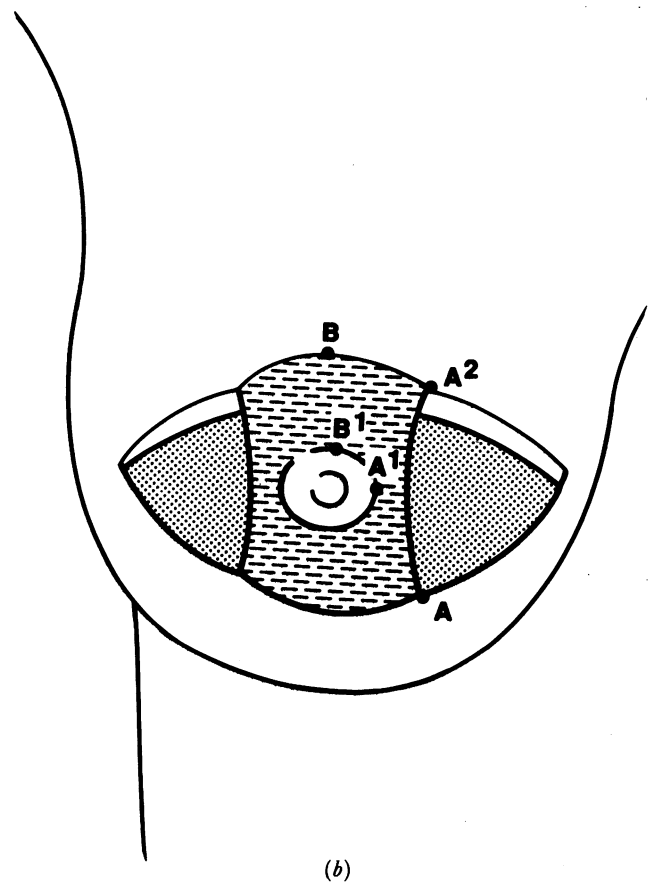
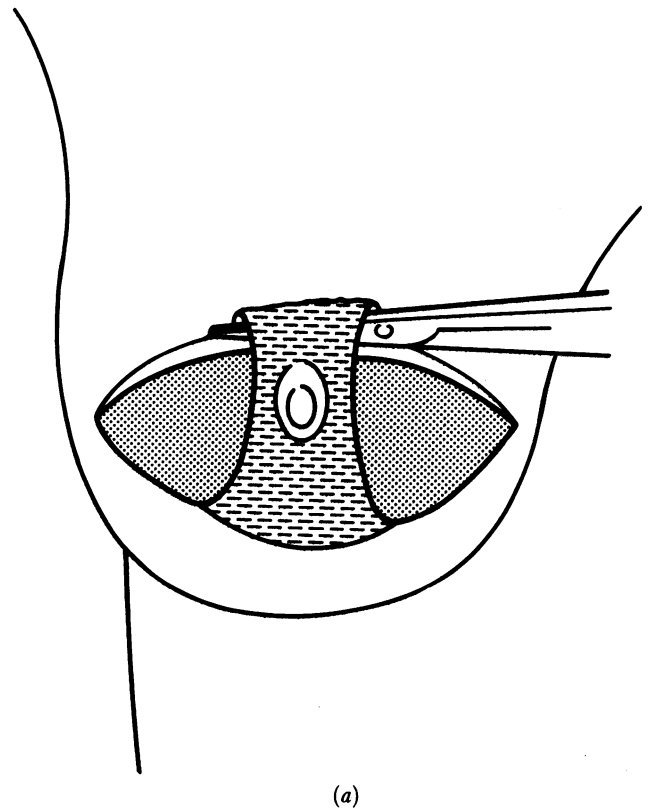
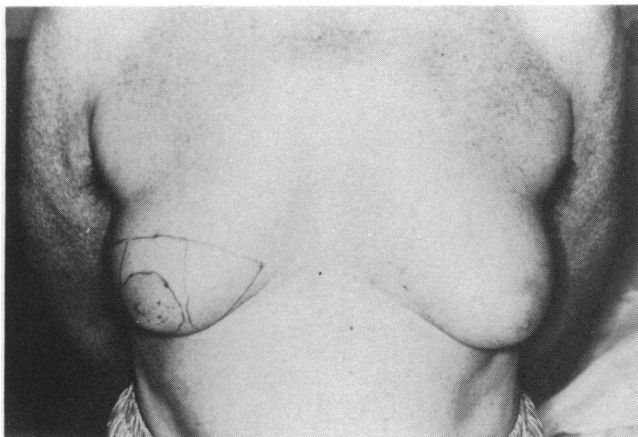
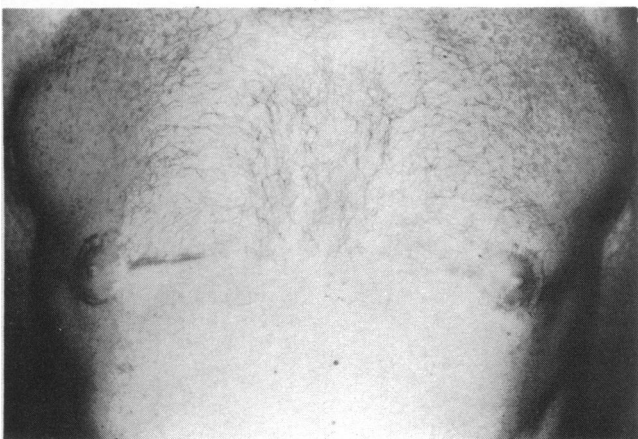


FIG. 3 (a) Medial and lateral triangles of skin are excised, including all the breast tissue but leaving a vertical bridge of deepithelialised flap including the intact nipple and areola. (b) The elliptical defect is closed but by linking points A, A<sup>1</sup> to A<sup>2</sup>, then B to B<sup>1</sup> together with their counterpoints the nipple-areolar complex lies in the natural position and projects over the folded deepithelialised flap.



(a)



(b)

FIG. 4 (a, b) Illustrating the results of surgery in a patient with iatrogenic grade III gynaecomastia subsequent to medication for carcinoma of the prostate.

porating an additional curve above and below the superior and inferior de-epithelialised pedicle, respectively, a more circular closure is possible (Figs. 2–4).

In no patient was there any nipple–areolar ischaemia; the only complication being a haematoma on one side of a single patient which required surgical evacuation. The patients were all warned about the position and the extent of the scar and were prepared to make this exchange for a normal male chest wall contour.

## References

- 1 Aegineta Paulus. On male breast resembling the female. In: Adams F (tr). *The Seven Books of Paulus Aegineta*. London: Sydenham Society 1846, Vol 2, Book 6, Section 46, 334–5.
- 2 Simon BE, Hoffman S. Correction of gynaecomastia. In: R M Goldwyn ed. *Plastic and Reconstructive Surgery of the Breast*. Boston: Little, Brown, 1976:305–27.
- 3 Courtiss EH. Gynaecomastia: Analysis of 159 patients and current recommendations for treatment. *Plast Reconstr Surg* 1987;79:740–50.
- 4 Simon BE, Hoffman S, Khan S. Classification and surgical correction of gynaecomastia. *Plast Reconstr Surg* 1973;51:48–52.
- 5 Letterman G, Schurter M. Surgical correction of massive gynaecomastia. *Plast Reconstr Surg* 1972;49:259–62.
- 6 Pers M, Bretteville-Jensen G. Reduction mammoplasty based on the vertical vascular bipedicle and 'tennis ball' assembly. *Scand J Plast Reconstr Surg* 1972;6:61–9.
- 7 Bretteville-Jensen G. Surgical treatment of gynaecomastia. *Br J Plast Surg* 1975;28:177–80.

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## Book review

**Accidents and Emergencies** by Norman Kirby. 442 pages illustrated. Castle House Publications, Tunbridge Wells. £16.00.

This excellent, pocket-sized reference book is dedicated to the casualty officer in need of simple practical advice on the management of the Accident and Emergency patient. Within the twenty-four chapters a wealth of useful information is found covering most situations encountered by the new and more experienced senior house officer.

The first chapter, a general introduction, provides essential basic advice on such diverse subjects as doctor–patient communication and the management of people hit by rubber bullets—the latter, hopefully, rarely seen in the Accident and Emergency Department! I found the section on X-ray guidelines for the referral of patients a particularly useful inclusion. The next chapter deals with the management of the multiply-

injured patient. The simplicity of this chapter, as of others, is greatly enhanced by the use of tables and flow diagrams. However, I felt that some of the illustrations could be improved upon in future editions. Subsequent chapters cover the wide spectrum of pathologies seen in the Accident and Emergency Department. The chapter on the central nervous system is concise and provides sound advice for the management of head injuries. Chapter 19, a most welcome section, examines the medico-legal aspects of accident and emergency medicine and should be diligently read by the novice casualty officer.

At sixteen pounds, this book is highly recommended and every Accident and Emergency Department should ensure a copy is readily available among the ageing texts normally found on their bookshelves.

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