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Axillary Approach for Gynecomastia Liposuction

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Abstract. Liposuction through an axillary incision is used to treat pseudogynecomastia and true gynecomastia. It avoids the large undermining between the skin and the muscular plane that frequently occurs with usual procedures. When true gynecomastia is present, liposuction can be combined with an inferior periareolar incision for resection of the remaining glandular tissue. Unlike usual procedures that can lead to deep skin adherence, depression in the mammary area, or nipple–areola complex deformity, liposuction provides a well-defined contour for the male breast.

Key words: Liposuction—Pseudogynecomastia—True gynecomastia—Axillary approach

Several procedures have been proposed for treating gynecomastia. Some of them are based on a large undermining that completely removes the adipose and glandular tissues [10]. Extensive undermining between the skin and the muscular plane creates a forced and unnatural cavity that can cause deformities later. Thus, depression in the mammary area and adherence of the skin or nipple–areola complex to the level of undermining are not infrequent [3]. Furthermore, this unnatural cavity contributes to the formation of seroma, hematoma, and lymphatic collection [5]. Other treatments are based on extensive resection of the breast tissue, followed by resection of the redundant skin, leaving conspicuous scars [4].

The introduction of liposuction as a treatment for gynecomastia [7,8], sometimes combined with traditional procedures [1,9], has minimized these problems and justified its use. The encouraging recent results achieved by liposuction through an axillary incision for treating gynecomastia [1] have led to reappraisal of this procedure. For better results, some refinements were introduced such as location of the axillary incision, use of a catheter guide tube for the cannula, and the cannula diameter.

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Method

Prior to surgery the area corresponding to the mammary circumference that will be aspirated is marked with the patient in the sitting position. Liposuction through a 1.5-cm axillary incision is performed over the axillary fold next to the anterior axillar line, in the margin of the pectoral muscle (Fig. 1A). A full-thickness incision exposes the superficial muscle aponeurosis. Straight lines following the direction of the pectoral muscle fibers, from the axillar incision and extended to the mammary circumference, are outlined on the skin as a guideline for liposuction (Fig. 1B). A short catheter guide tube is introduced and anchored into the incision borders to avoid damaging it (Fig. 2A). Through this tube several tunnels are undermined within the deep layer (lamellar layer) of the subcutaneous tissue. The undermining is performed by round dissection using a long 3-mm straight cannula (Fig. 2B). Fat is aspirated through these tunnels from the whole mammary circumference by the same cannula to attain a well-defined male contour for the chest wall (Fig. 3). An inferior periareolar incision is added to the liposuction to resect the remaining periareolar glandular tissue (Fig. 4). A compressive dressing is applied during the first 24 hours and replaced by elastic adhesive tape dressing for skin arrangement.

Results

Twenty-five patients underwent this procedure and were followed postoperatively for 12 months. Liposuction through an axillary incision was used on 15

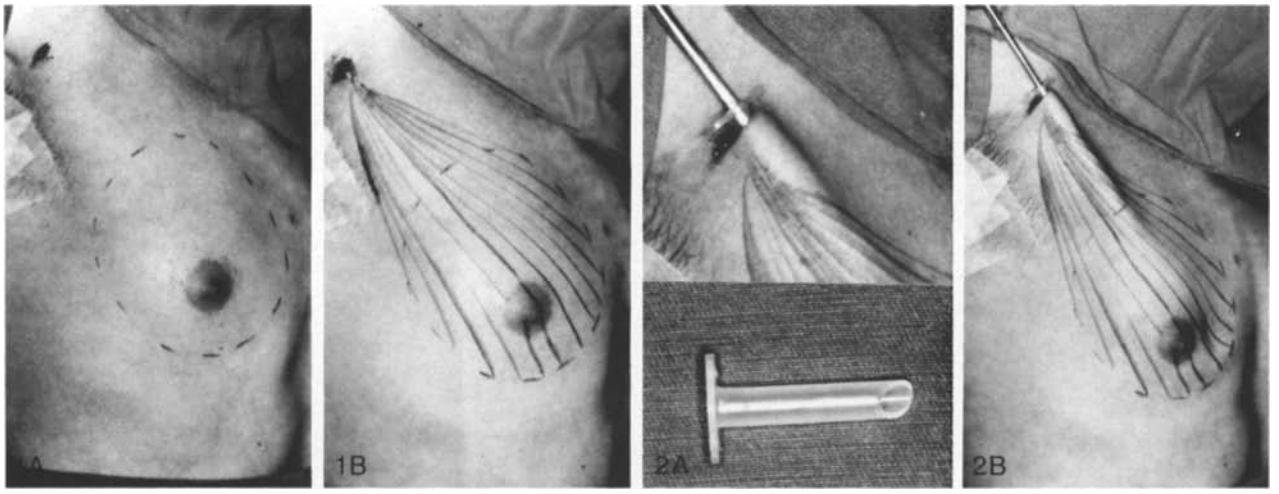

Fig. 1(A) The incision placed over the axillary fold next to the anterior axillar line yields an aesthetically pleasing scar. **(B)** Straight lines outlined on the skin follow the direction of the pectoral muscle fibers.
Fig. 2(A) The catheter guide tube used to protect the incision borders. **(B)** A long 3-mm straight cannula creates the tunnels within the deep layer of the subcutaneous tissue

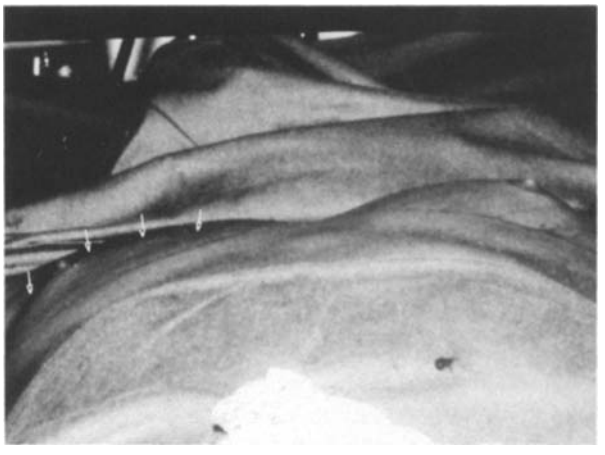

Fig. 3. After liposuction the arrows show the recovered male breast contour on the right side

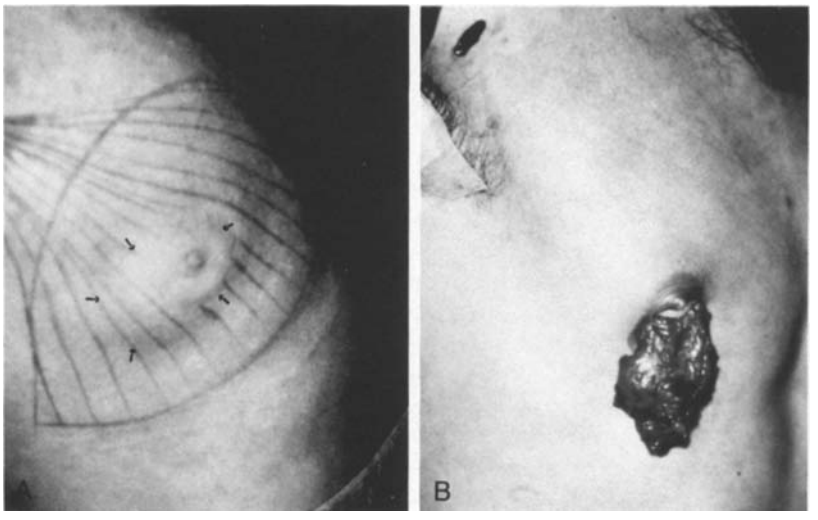

Fig. 4(A) The arrows show the remaining glandular tissue after liposuction when true gynecomastia is present. **(B)** The glandular tissue is removed through an inferior periareolar incision

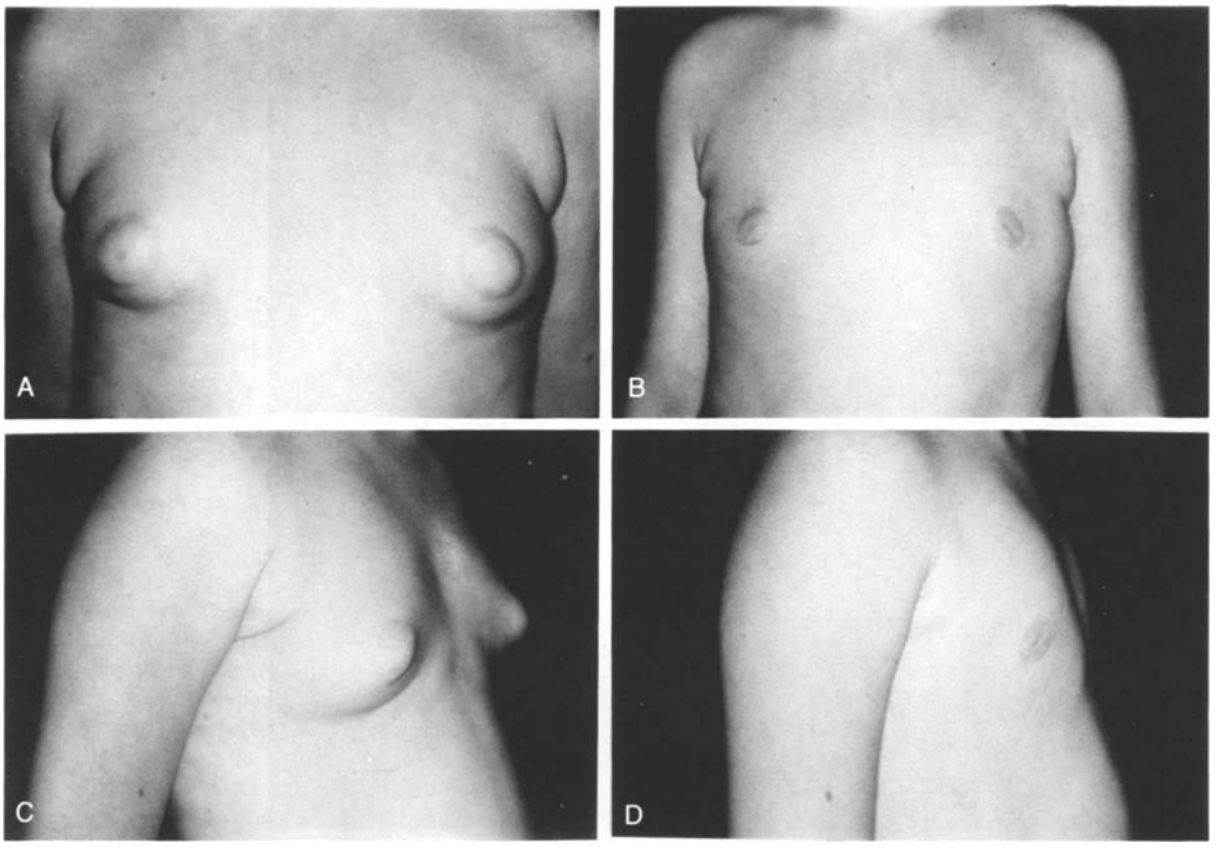

Fig. 5(A,C). Preoperative view of extreme true gynecomastia. A moderate degree of ptosis is present on the left breast. There is more adipose tissue on the left side than on the right. **(B,D)** At one year after liposuction and the surgical removal the glandular tissue, the patient has recovered male breast contour

patients for surgical correction of pseudogynecomastia (adipose form). It was combined with an inferior periareolar incision in ten patients only when true gynecomastia (glandular tissue with a considerable amount of adipose tissue) was present. Liposuction decreased the excessive male breast projection, providing a smooth contour for the chest wall. The scars—either axillar or periareolar—have a masked appearance. Complications such as depression in the suctioned mammary area, adherence of the skin to the muscular level, or deformity of the nipple–areola complex were not observed. Hematoma, seroma, or lymphatic collection were also not observed. Two representative cases are presented in detail.

Case 1

A 14-year-old male presented with severe true gynecomastia. Excessive projection of the breast contour and the hypertrophic nipple–areola complex gave a female shape to the male breast. In addition, a secondary adipose breast was present at the axillary fold (Fig. 5A,C). He underwent liposuction through an axillary incision, followed by resection of the glandular tissue through an inferior periareolar incision. A well-defined contour for the chest wall was achieved (Fig. 5B,D).

Case 2

A 21-year-old male presented with a larger degree of true gynecomastia. The excess of adipose tissue projected the breast, thus modifying the male breast contour (Fig. 6A,C). He underwent liposuction combined with surgical resection of the remaining glandular tissue. The patient had a satisfactory decrease in the breast projection and improvement in contour (Fig. 6B,D).

Discussion

The quantity and the behavior of the localized adipose tissue [2] and the narrow access for its removal are the main challenges in treating gynecomastia. Liposuction through a small incision on the axillary fold removes adipose tissue with minimal undermining and low risk of complications. The incision made toward the pectoral muscle fibers, described in our previous publication [1], is not done here. It is now located over the axillary fold making the scar inconspicuous. The can-

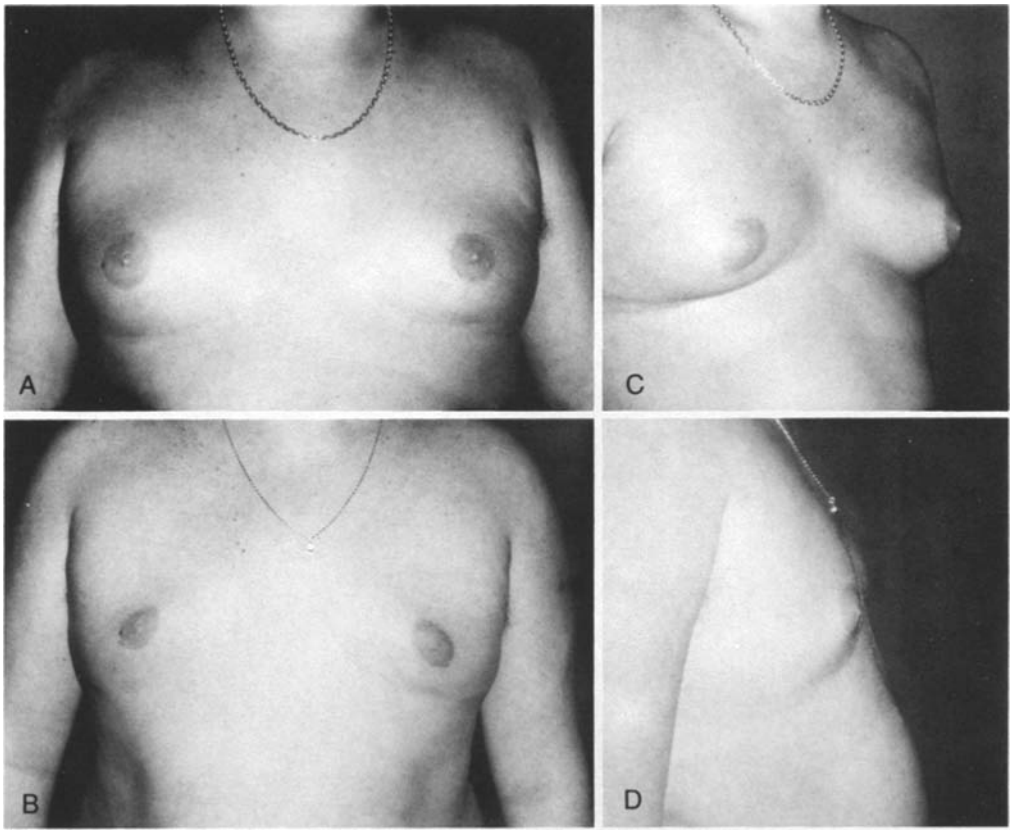

Fig. 6(A,C) Preoperative view of larger degree of true gynecomastia. **(B,D)** At one year following liposuction and the surgical removal of the glandular tissue. A satisfactory result was achieved, except that more adipose tissue could have been aspirated to attain a better breast contour

nula's small diameter makes narrow tunnels; therefore, more tunnels can be made than using cannula with larger diameter. The tunnels are created by building a sponge framework within the lamellar layer of the subcutaneous tissue. Gradually, the sponge framework develops a concentric retraction that promotes the subcutaneous tissue and overlying skin arrangement and provides a smooth contour for the male breast. The septi of the sponge prevent depression of the suctioned mammary area and adherence of the skin and the nipple– areola complex to the muscular layer. They also decrease the possibility of seroma, hematoma, or lymphatic collection. Recently, subdermal liposuction has been indicated when skin retraction is needed [6]. However, we have performed liposuction within the lamellar layer of the subcutaneous tissue. In spite of this, the skin contracts well over the sponge framework, assuring aesthetic improvement of our patients' breast contour. Because of the hardness of the subareolar glandular mammary tissue, it is not possible for the cannula cross through it. As a result, in true gynecomastia the remaining glandular tissue is surgically removed through a periareolar incision.

Results suggest that liposuction through an axillary approach is helpful in achieving a better aesthetic appearance in treating gynecomastia.

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