

Klimberg

Atlas of Breast Surgical Techniques



**SURGICAL
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Atlas of Breast Surgical Techniques

A Volume in the Surgical Techniques Atlas Series

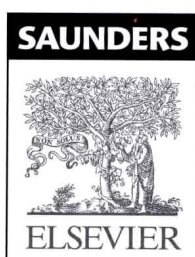
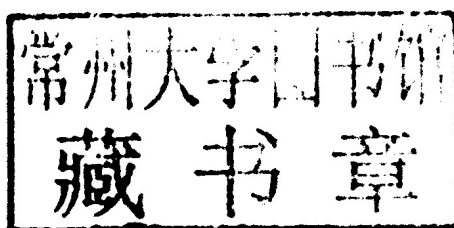
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*To my TEAM at work: Roberta, Maureen, Sheila, Laura, and all the nurses and Fellows; and
My TEAM at home: Sam, Spencer, and Sade*

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FOREWORD

“A picture is worth a thousand words.”

Anonymous

This atlas is for practicing surgeons, surgical residents, and medical students for their review and preparation for surgical procedures. New procedures are developed and old ones are replaced as technologic and pharmacologic advances occur. The topics presented are contemporaneous surgical procedures with step-by-step illustrations, preoperative and postoperative considerations, and pearls and pitfalls, taken from the personal experience and surgical practices of the authors. Their results have been validated in their surgical practices involving many patients. Operative surgery remains a manual art in which the knowledge, judgment, and technical skill of the surgeon come together for the benefit of the patient. A technically perfect operation is the key to this success. Speed in operation comes from having a plan and devoting sufficient time to completion of each step, in order, one time. The surgeon must be dedicated to spending the time to do it right the first time; if not, there will never be enough time to do it right at any other time. Use this atlas; study it for your patients.

“An amateur practices until he gets it right; a professional practices until she can’t get it wrong.”

Anonymous

Courtney M. Townsend, Jr., MD
B. Mark Evers, MD

PREFACE

Surgical treatment of the breast is an underappreciated art. Although the anatomy of the breast and axilla is relatively simple, it can be very confusing during surgery because of the varied approaches and the fatty content of the axilla. This book tries to simplify the anatomy based on approach and surgical techniques.

I have heard many residents say how easy they thought breast surgery was. Yet even in these modern times as many as 40% of patients having lumpectomies emerge from their operation with close or positive margins and an increased risk for local recurrence. This atlas specifically teaches techniques that will improve the outcome for patients facing breast cancer. These include the latest techniques in intraoperative removal of tumors, ablation of margins, accurate sentinel lymph node identification and removal, axillary reverse mapping to prevent lymphedema, and reconstruction techniques.

In surgery we usually do not say where we trained as much as we say who trained us. In breast surgery I trained with Copeland, Bland, and Westbrook, who are some of the great thinkers of our time and whose text and atlases, such as this one, are important in disseminating technical knowledge. We hope that this atlas will serve as a simplified compendium of breast disease and the latest and best techniques to treat it. This work is built on the shoulders of those who came before us.

V. Suzanne Klimberg, MD

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SECTION

I

Excisional Biopsy/Partial Mastectomy

ASPIRATION OF A BREAST CYST

V. Suzanne Klimberg

Step 1. Surgical Anatomy

- ◆ A cyst is a dilated duct (Fig. 1-1).
 - ▲ See also Fig. 1-3

Step 2. Preoperative Considerations

- ◆ A breast cyst should be aspirated if one cannot be sure it is a simple cyst (i.e., it is multiloculated [see Fig. 1-2] or has internal echoes on ultrasonography [US]), it is painful, or it shows signs of infection (see Chapter 2, Incision and Drainage of an Abscess).
- ◆ Most simple cysts, even when palpable, do not require aspiration. Explain to the patient that a simple cyst is simply a dilated duct to calm cancer phobia and avoid unnecessary cyst aspiration (Fig. 1-1, C).
- ◆ Unnecessary cyst aspiration may lead to hematoma or inadvertent infection of the cyst itself, requiring later open drainage.
- ◆ Hematoma requires only observation.

Step 3. Operative Steps

1. Setup

- ◆ Use a 20-gauge 2-inch needle, an alcohol pad, and a syringe compatible with the size of the cyst to be aspirated. A 20-gauge spinal needle may be used for deeper cysts. Usually a 5- to 10-mL syringe will suffice.

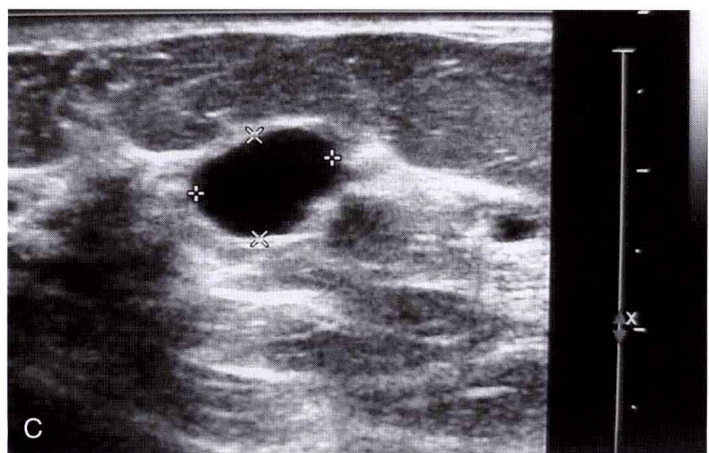
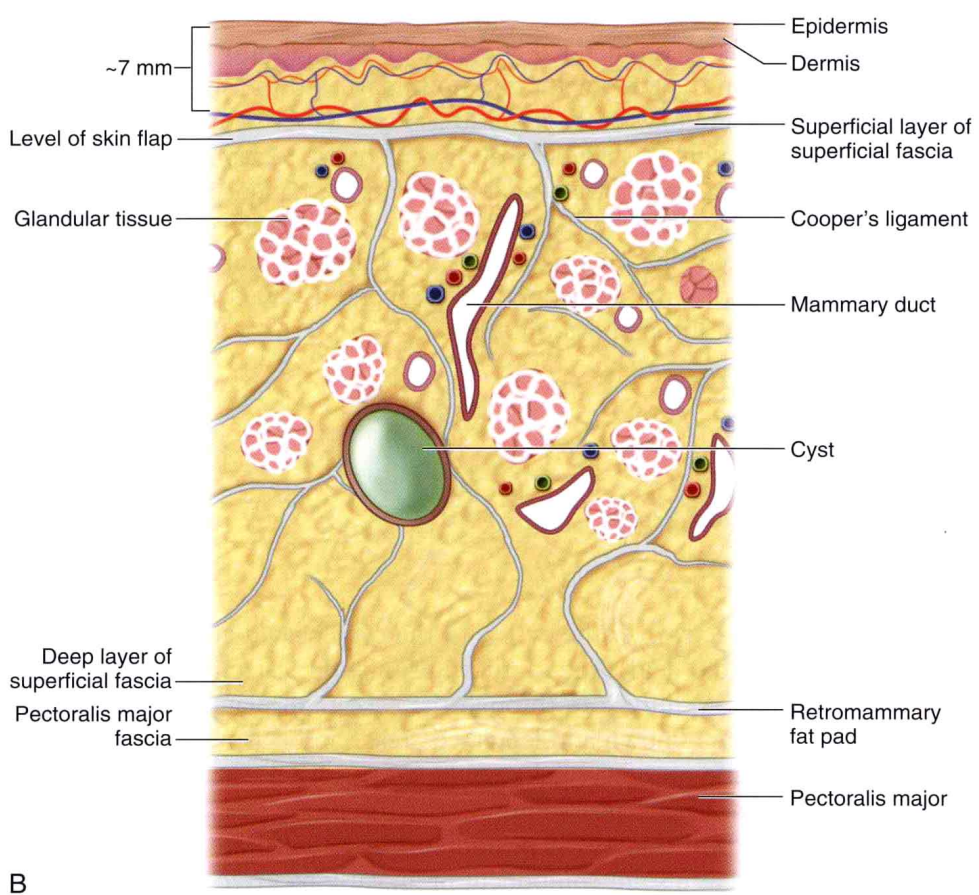
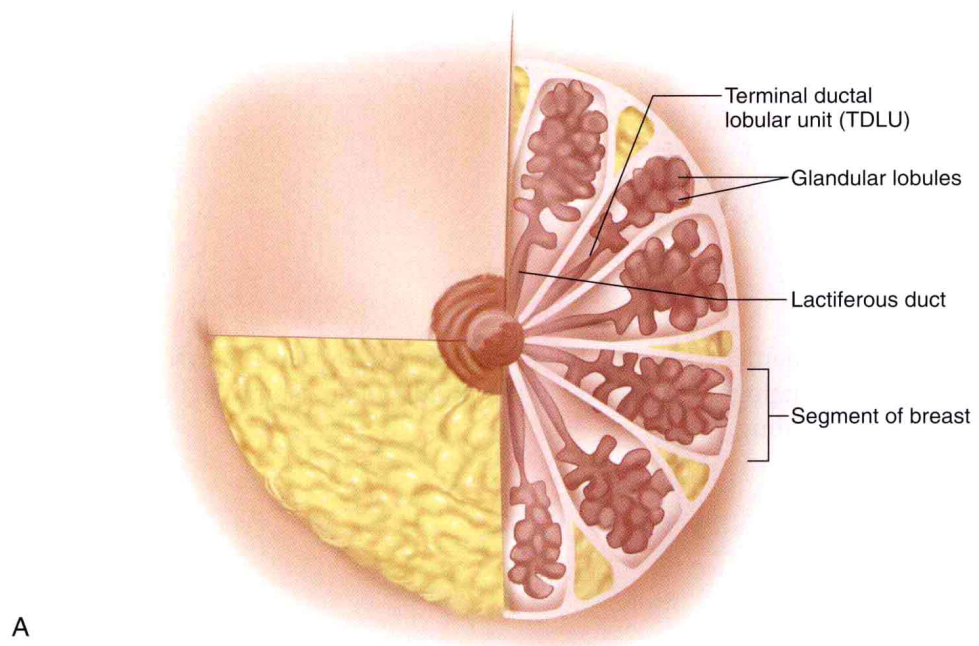


Figure 1-1

- ◆ Larger syringes are harder to handle but should be used when the cyst is larger than 2 cm in diameter. Avoid changing a full syringe in the middle of an aspiration, which can cause loss of positioning and bleeding.

2. Palpable Positioning

- ◆ Palpable positioning is not recommended and should be used only when US is not available.
- ◆ Position the patient flat on the table with a bump underneath the shoulder and the arm above the head. Occasionally there may be a reason to aspirate a cyst with the patient in the upright position. Although not wrong, this is not ideal. If you choose to aspirate in an upright position, make sure there is adequate assistance available should the patient faint.
- ◆ When cysts are located laterally or in the axilla, position the patient in a lateral decubitus position so the breast falls medially. This may work for inframammary lesions as well, but such lesions usually require additional retraction. Get a second assistant or use a sticky biodrape to retract and hold the breast in one position.

3. Positioning the Ultrasound Probe

- ◆ Position the US probe directly over the cyst with the cyst located at the side of the probe (not in the middle of the visible field), thus indicating the shortest possible distance to the cyst (Fig. 1-3). Before aspiration, fully scan through the cyst in all planes such that the full extent of the cyst and any septa are known and loculated areas can be aspirated. The notch on the US probe indicates the left side of the US field, so the entry path to the cyst can always be identified on the visible screen. Check positioning under the probe by placing a finger at the edge of transducer; the finger will shadow. If positioning is not accurate, an unaspirated area may be mistakenly interpreted as a solid component or an early recurrence of the cyst on follow-up scans.