

Contents

Preface xi

Scott L. Spear

The Evolution of Breast Implants 1

G. Patrick Maxwell and Allen Gabriel

Female glandular hypomastia is a frequently encountered entity that occurs either developmentally or by postpartum involution. Historically, women have long sought breast enlargement to improve physical proportions, to foster a more feminine appearance, or to enhance self-image. This article explores the evolution of breast implants.

History of Breast Implants and the Food and Drug Administration 15

Scott L. Spear, Pranay M. Parikh, and Jesse A. Goldstein

Over the past 30 years, silicone-gel breast implants and their manufacturers have experienced a tumultuous relationship with the FDA and the public, which has changed the modern climate of industry oversight and the field of plastic surgery. We present an account of the events leading up to and resulting from the 1992 FDA moratorium on silicone implants. We highlight the involvement of the manufacturers, the scientific and legal communities, regulators, the plastic surgery community, and others as they strive to come to terms with a fearful public opinion shaped by the influence of the media. Finally, we describe how these past events will help the field of plastic surgery grow and continue to push the bounds of medicine.

Measuring Patient Outcomes in Breast Augmentation: Introducing the BREAST-Q[®] Augmentation Module 23

Andrea L. Pusic, Patrick L. Reavey, Anne F. Klassen, Amie Scott, Colleen McCarthy, and Stefan J. Cano

The BREAST-Q[®] Augmentation module is a new and unique questionnaire for measuring patient-reported outcomes following breast augmentation. It has undergone a rigorous development and validation process and is currently the only questionnaire for breast augmentation that meets international and federal standards for questionnaire development. The BREAST-Q[®] Augmentation module covers a comprehensive set of concerns of breast augmentation patients, including satisfaction with breasts and impact on quality of life. With its excellent psychometric properties, the BREAST-Q[®] Augmentation module can provide clinicians and researchers with a wealth of essential data to improve the field of breast augmentation from the perspectives of both surgeons and patients.

The Inframammary Approach to Breast Augmentation 33

Steven Teitelbaum

The inframammary approach to breast augmentation is the standard to which all others must be compared. The critical part of the breast augmentation operation

is the accuracy and symmetry of the pocket creation, and the anatomically most critical aspect of this dissection lies at the inframammary fold. The inframammary approach unquestionably offers the greatest visualization of this area and results in the least damage to normal tissue.

The Periareolar Approach to Breast Augmentation

45

Dennis C. Hammond

Incision placement in patients undergoing augmentation mammoplasty is an important element of the overall strategic plan of the procedure. Whatever incision location is chosen, access to the breast must be sufficient to afford accurate dissection of the pocket, to allow easy insertion of the implant, and to provide for precise hemostasis. At the same time, the incision should be placed where the resulting scar will be inconspicuous and well hidden. For many surgeons, the periareolar approach satisfies all of these requirements. This article describes the various advantages associated with the periareolar incision for breast augmentation and provides the technical details to enable best use of the technique.

The Transaxillary Approach to Breast Augmentation

49

Salvatore J. Pacella and Mark A. Codner

The transaxillary approach to breast augmentation provides patients with an option for augmentation that avoids any visible scars on the breast. The versatility of the endoscopic technique allows the surgeon to reliably dissect the submuscular pocket under direct visualization and to control the position of the inframammary fold while still enabling the use of any of a wide variety of both saline and silicone implants. This article addresses issues related to patient selection and preoperative assessment of this technique as well as technical aspects of performing this operation. In addition, the article reviews postoperative management of the endoscopic augmentation patient and describes potential complications associated with this technique.

Transumbilical Breast Augmentation

63

Neal Handel

Transumbilical breast augmentation was first described in the literature more than 15 years ago. Since its introduction, this procedure has been controversial and has never been widely adopted by plastic surgeons. This article reviews the history of transumbilical breast augmentation; describes a simplified, nonendoscopic approach to insertion of saline implants via the umbilicus; and discusses the advantages, disadvantages, and limitations of this technique.

Form-Stable Silicone Gel Breast Implants

75

Mark Jewell

This article addresses the question of what is the optimal shape for a breast implant. It is oriented toward processes, system engineering, and operational excellence versus being a treatise on the author's personal technique.

- Mastopexy Augmentation with Form Stable Breast Implants** 91
Per Hedén
- Mastopexy combined with augmentations is considered to be a technically advanced and difficult procedure; thus, many surgeons recommend doing this procedure in two separate stages to minimize the risk for complications. A one-stage procedure has, however, several advantages. Even if one-stage mastopexy augmentations are more technically demanding to perform and even if a slightly increased risk for healing problems exists, these procedures can be performed safely if the planning and surgical technique are accurate. The planning and surgical technique described in this article have been used by the author for the past 10 years, with moderate modification in the twenty-first century, leading to a predictable outcome with a low degree of reoperations and complications. This article describes in detail the surgical technique and planning.
- Augmentation Mastopexy** 105
Scott L. Spear, Joseph H. Dayan and Mark W. Clemens
- Primary augmentation/mastopexy is associated with a significantly higher complication rate than primary augmentation alone. Despite this, its popularity has steadily increased. This demand has led to the need for careful preoperative planning and surgical execution to minimize the most frequent complications. This article focuses on the authors' experience with the technical aspects of the procedure.
- Commentary** 117
Allen Gabriel and G. Patrick Maxwell
- Capsular Contracture: What is It? What Causes It? How Can It Be Prevented and Managed?** 119
William P. Adams, Jr
- For more than 40 years capsular contracture has plagued plastic surgery as the most common complication of aesthetic and reconstructive breast surgery. This article reviews the basis for capsular contracture and defines the methods to prevent it and treat it when it occurs. Capsular contracture is most commonly a result of a subclinical colonization of the implant pocket with bacteria. Sound techniques—including precise, atraumatic, bloodless dissection; appropriate triple antibiotic breast pocket irrigation; and minimizing any points of contamination during the procedure—have produced very low capsular contracture rates. Treatment of capsular contracture is most often surgical total capsulectomy with site change when indicated and replacement with a new implant.
- Management of Common and Uncommon Problems After Primary Breast Augmentation** 127
Maurice Y. Nahabedian and Ketan Patel
- The management of common and uncommon problems following breast augmentation can pose a challenge in some situations. The diversity of these problems is remarkable and different principles and concepts should be adhered to for optimal management. This article reviews some of these problems and hopefully provides solutions for prevention and management.

Complications, Reoperations, and Revisions in Breast Augmentation

139

Bradley P. Bengtson

This article addresses the description and classification of complications following breast augmentation, presenting literature on their occurrence and some suggestions for avoiding complications. There are some excellent resources on surgical algorithms and solutions to correct or enhance these complications and revisional breast augmentation surgery listed along with sources focused on prevention of complications. My hope is that you will accept the challenge to look back and also move forward to track your personal patient data and openly and honestly share your results and data for the benefit of your colleagues and future breast augmentation patients; and even though it is difficult, when required, to be open enough to change the way you practice.

The Anatomy of Revisions After Primary Breast Augmentation: One Surgeon's Perspective

157

Scott L. Spear, Joseph H. Dayan, and Justin West

Although breast augmentation is a procedure with a high patient satisfaction rate, at some point in time, some patients will need a revision. A better understanding of what leads to revisions is desirable to determine whether the frequency of revisions can be reduced. With that in mind, we reviewed all revisions in a consecutive series of primary breast augmentation patients who underwent surgery over a 3-year period with a minimum follow-up of 2 years. The overall revision rate was 10%. The primary indications for revision included 4% malposition (bottoming out), 2% capsular contracture, 2% size change, and 2% switch from saline to silicone. Specific case reports are presented in detail to examine the nature of these revisions.

Possible Future Development of Implants and Breast Augmentation

167

G. Patrick Maxwell and Allen Gabriel

Since the introduction of the silicone gel prosthesis in 1962, breast augmentation has become one of the most frequently performed operations in plastic surgery. As we strive for perfect results, it is important to continue to gather and review data evaluating innovative techniques and devices. Now we even have more options available for breast augmentation, whether we use them in combination or alone. By combining all of the available options (acellular dermal matrix products, silicone implant, fat grafting), we have been able to create “bioengineered breasts” with high patient and surgeon satisfaction. As always in plastic surgery, our concern is with safety; as newer technology and products are introduced to us, patient education, consent, and follow-up remain important.

Index

173