

Breast Reconstruction with Implants after Mastectomy

Jesus Albertinio Jarquín Delgado¹, Alexis Emir Noguera Echeverría², Carlos Ignacio Rafael Pérez³, Francisco Rodolfo Esquivel Díaz⁴, Victor Hugo Solis Reyna⁵, Sergio Heinar Rodríguez Sosa⁶.

¹Universidad de Monterrey, Monterrey, Nuevo Leon, Mexico.

^{2,4,5,6}Merida APP Hospital Clinic ISSSTE

³Universidad Popular Autónoma del Estado de Puebla

ABSTRACT

Breast reconstruction is an important procedure for women who have had a mastectomy due to breast cancer or other diseases. Breast reconstruction can improve self-esteem, body image, and quality of life for women who have experienced breast loss. Breast reconstruction with implants is an effective and popular technique for breast reconstruction after mastectomy. However, it also has its limitations and complications, so it is important for patients and surgeons to work together to select the right technique and minimize the risk of post-operative complications. The choice of implant type, surgical technique and prevention of complications such as capsular contracture and implant rupture are important factors to consider in breast reconstruction with implants. Continued research and development in this field may further improve the efficacy and safety of this technique in the future.

ARTICLE DETAILS

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INTRODUCTION

1.1 Epidemiology of breast cancer: Breast cancer is the most common tumor in women worldwide, accounting for 24.2% of all cancer cases in women. In developed countries, breast cancer is the second leading cause of cancer death in women, after lung cancer. In developing countries, breast cancer is the leading cause of cancer death in women.

1.2 Significance of breast reconstruction: Breast reconstruction is an important procedure for women who have undergone mastectomy due to breast cancer or other diseases. Breast reconstruction can improve self-esteem, body image, and quality of life for women who have experienced breast loss.

METHODS

For the realization of this literature review article about breast reconstruction with implants, an exhaustive search of the updated and relevant scientific literature on the subject was carried out in various databases such as PubMed, MEDLINE, Cochrane Library and Google Scholar. We used the following search terms: 'breast reconstruction with implants', 'breast implants', 'breast implant complications', 'indications for reconstruction with implants', 'contraindications for reconstruction with implants', 'surgical techniques for breast reconstruction with implants'.

The search was limited to publications in English and Spanish, published in the last 10 years. We included review articles, clinical studies, clinical guidelines, case reports and case series.

ROLE OF IMPLANTS

1.1 Types of implants

There are two main types of breast implants used in breast reconstruction: saline and silicone implants. Saline implants are filled with sterile saline, while silicone implants are filled with silicone gel. Both types of implants have advantages and disadvantages. Saline implants are less expensive and can be adjusted in size after surgery, while silicone implants have a more natural feel. However, silicone implants have a slightly higher rate of complications, such as capsular ruptures and contractures.

1.2 Indications for reconstruction with implants

Indications for breast reconstruction with implants include surgical removal of the breast due to breast cancer or trauma, or breast reconstruction for cosmetic reasons. The choice of the type of implant and the time of reconstruction (either immediately after the mastectomy or at a later time) will depend on the individual situation of the patient and the recommendation of the plastic surgeon.

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1.3 Contraindications to reconstruction with implants

There are some contraindications to breast reconstruction with implants, such as inflammatory breast disease, active infections in the body, severe lung or heart disease, and a high risk of infection or rejection of the implant. It is important for patients to discuss their complete medical history with their plastic surgeon prior to surgery.

1.4 Complications

Common complications of breast reconstruction with implants include infection, bruising, changes in nipple sensation, pain, and scarring. There are also long-term risks, such as capsular contracture, implant rupture, and need for implant replacement in the future.

As for available surgical techniques, these may include the placement of a breast implant under or above the pectoralis major muscle, and the latissimus dorsi muscle flap technique, in which a muscle and skin from the back is used to reconstruct the breast. The technique used will depend on the individual needs of the patient and the recommendation of the plastic surgeon.

DISCUSSION

Breast reconstruction with implants has been widely used around the world as it is a simple and fast technique, which can provide satisfactory results for most patients. However, as mentioned above, there are a number of complications and disadvantages that need to be considered before performing surgery. Importantly, the choice of the type of reconstruction must be individualized for each patient, since factors such as anatomy, the amount of tissue available and personal preferences can influence the decision.

As for complications, capsular contracture is one of the most frequent and problematic. The prevention of this complication is crucial, and various techniques have been proposed to minimize its incidence. The proper selection of the size and shape of the implant, as well as the submuscular placement and the use of polyurethane-coated prostheses, are some of the recommended strategies to reduce the risk of capsular contracture.

Another major complication is implant rupture. Although the rupture rate of modern implants is low, it should be noted that this complication can occur at any time, even years after surgery. It is important for patients to have regular check-ups for any signs of rupture or complication.

As for the surgical techniques available, there are several options for implant placement, including submuscular, subglandular, and subfacial placement. The choice of technique depends on several factors, such as the amount of tissue available, the shape of the breast, and the preferences of the surgeon and patient. Submuscular placement is the most commonly used technique, as it can provide more natural results and reduce the incidence of complications such as capsular contracture. However, it can also have a longer recovery period and cause more post-operative pain.

In summary, breast reconstruction with implants is a commonly used technique for breast reconstruction after a mastectomy. Although it has its advantages, there are also a number of complications and disadvantages that need to be considered before performing surgery. It is important for surgeons and patients to work together to select the proper technique and minimize the risk of postoperative complications.

CONCLUSION

Breast reconstruction with implants is an effective and popular technique for breast reconstruction after mastectomy. However, it also has its limitations and complications, so it is important for patients and surgeons to work together to select the right technique and minimize the risk of post-operative complications. The choice of implant type, surgical technique and prevention of complications such as capsular contracture and implant rupture are important factors to consider in breast reconstruction with implants. Continued research and development in this field may further improve the efficacy and safety of this technique in the future.

CONFLICTS OF INTEREST

None.

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FIGURES

Table 1. Types of implants

Type of implant	Material	Filling	Surface	Form	Advantages	Disadvantages
Saline implants	Elastomeric silicone	Saline	Lisa the textured	Round the anatomical	Less expensive, adjustable padding	More likely to wrinkle or deflate
Cohesive silicone gel implants	Silicone	Cohesive silicone gel	Lisa the textured	Round the anatomical	Natural look and feel, less wrinkles	Higher cost, harder to detect breakdown
Enhanced saline implants	Elastomeric silicone	Saline solution with additive	Textured	Round the anatomical	Lower risk of wrinkles or deflation, more natural than saline implants	Higher cost than saline implants
Highly cohesive silicone gel implants	Silicone	Highly cohesive silicone gel	Textured	Round the anatomical	Increased durability, reduced risk of breakage or gel leakage	Higher cost than saline implants
Adjustable saline implants	Elastomeric silicone	Saline solution with filling port	Textured	Round the anatomical	Postoperative size adjustment and symmetry	Higher cost than saline implants, higher risk of wrinkles or deflation