NIPPLE SPARING PRE-PECTORAL BREAST RECONSTRUCTION

42 yo female healthy athlete
  Right breast mass.
Past medical history: none
Family history: aunt with Breast cancer
Candidates for nipple-sparing mastectomy include:

women whose tumor does not involve the nipple or tissue under the areola

women whose tumors are surrounded by a clear margin of cancer-free tissue

women who have not been diagnosed with inflammatory breast cancer or advanced breast cancer with skin involvement
The Oncological Safety of Nipple-Sparing Mastectomy: A Systematic Review of the Literature with a Pooled Analysis of 12,358 Procedures

“We concluded that NSM appears to be an oncologically safe option for appropriately selected patients, with low rates of locoregional recurrence. For NSM to be performed, tumours should be peripherally located, smaller than 5 cm in diameter, located more than 2 cm away from the nipple margin, and human epidermal growth factor 2-negative”

Complications comprised minimal nipple necrosis without further intervention in four patients and hematoma with evacuation in four patients. Implant removal had to be performed in one patient after radiotherapy and massive edema and pain. Cosmetic results were excellent and patients were fully satisfied at a median follow-up of 16 months. Breast animation and implant displacement could not be observed. Implant rims were visible or palpable in the upper poles of the breasts in three very skinny patients and rippling was observed in two very skinny patients. Capsular contractures could not be observed, not even in patients treated with radiotherapy.

Prepectoral implant placement and the complete coverage with a porcine ADM is a novel approach and may provide an alternative to the subpectoral implant placement with an excellent cosmetic result avoiding the disadvantages of the subpectoral implant placement.
Early complications after nipple-sparing mastectomy and immediate breast reconstruction with silicone prosthesis: results of 214 procedures.

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Abstract

BACKGROUND AND AIMS: breast reconstruction with silicone prosthesis following nipple-sparing mastectomy has become widely accepted as a reconstruction option in women requiring mastectomy for cancer. The purpose of this study was to evaluate the incidence and some factors influencing early local complications in patients undergoing NSM with immediate implant reconstruction.

MATERIAL AND METHODS: prospective study was performed on a consecutive series of 214 breast reconstructions in 205 patients. All complications during the six weeks after surgery were recorded. 42 prostheses were implanted after neoadjuvant chemotherapy, 27 patients previously had radiotherapy due to breast conserving surgery and in all other cases surgery was the primary treatment for cancer.

RESULTS: the overall six-week complication rate was 16% (35) and included: major skin flap necrosis (4%, 9 procedures), minor skin necrosis (3%, 7), major infection (2%, 5), minor infection (3%, 7), prolonged seroma formation (3%, 6), haematoma (1%, 2) and epidermolysis (1%, 2). In 6% (12) reconstruction procedures explantation of prosthesis was done. Neoadjuvant chemo-therapy and radiotherapy were not associated with higher rate of complications.

CONCLUSION: nipple-sparing mastectomy with immediate implant reconstruction has acceptable morbidity rate in the hand of experienced oncoplastic surgeon and therefore should be considered as treatment option to women requiring mastectomy.
Prepectoral Breast Reconstruction: A Safe Alternative to Submuscular Prosthetic Reconstruction following Nipple-Sparing Mastectomy.

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Author Information

Abstract

BACKGROUND: Nipple-sparing mastectomy with immediate prosthetic reconstruction is routinely performed because of excellent aesthetic results and safe oncologic outcomes. Typically, subpectoral expanders are placed, but in select patients, this can lead to significant postoperative pain and animation deformity, caused by pectoralis major muscle disinsertion and stretch. Prepectoral reconstruction is a technique that eliminates dissection of the pectoralis major by placing the prosthesis completely above the muscle with complete acellular dermal matrix coverage.

METHODS: A single surgeon’s experience with immediate prosthetic reconstruction following nipple-sparing mastectomy from 2012 to 2016 was reviewed. Patient demographics, adjuvant treatment, length and characteristics of the expansion, and incidence of complications during the tissue expander stage were compared between the partial submuscular/partial acellular dermal matrix (dual-plane) cohort and the prepectoral cohort.

RESULTS: Fifty-one patients (84 breasts) underwent immediate prepectoral tissue expander placement, compared with 115 patients (186 breasts) undergoing immediate partial submuscular expander placement. The groups had similar comorbidities and postoperative radiation exposure. There was no significant difference in overall complication rate between the two groups (17.9 percent versus 18.8 percent; p = 0.49).

CONCLUSIONS: Prepectoral breast reconstruction provides a safe and effective alternative to partial submuscular reconstruction, that yields comparable aesthetic results with less operative morbidity. In the authors’ experience, the incidence of acute and chronic postoperative pain and animation deformity is significantly lower following prepectoral breast reconstruction. This technique is now considered for all patients who are safe oncologic candidates and are undergoing nipple-sparing mastectomy and prosthetic reconstruction.