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Title	P332: Oncological Safety and Patient Satisfaction of Immediate Lipofilling in Breast-Conserving Surgery: A Systematic Review and Subgroup Meta-Analysis Comparing Outcomes with No Lipofilling
Type	Article
URL	https://clock.uclan.ac.uk/54996/
DOI	https://doi.org/10.1016/j.breast.2025.104156
Date	2025
Citation	Sahoo, Aman Saswat, Eyidi, Madeleine-edmee Katia, Zaw, Khin Pyae Hmuu and Elayyan, R (2025) P332: Oncological Safety and Patient Satisfaction of Immediate Lipofilling in Breast-Conserving Surgery: A Systematic Review and Subgroup Meta-Analysis Comparing Outcomes with No Lipofilling. <i>The Breast</i> , 80. p. 104156. ISSN 0960-9776
Creators	Sahoo, Aman Saswat, Eyidi, Madeleine-edmee Katia, Zaw, Khin Pyae Hmuu and Elayyan, R

It is advisable to refer to the publisher's version if you intend to cite from the work.
<https://doi.org/10.1016/j.breast.2025.104156>

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rates and successful localization. It supports its role in improving surgical precision and outcomes.

The Breast 80S (2025) 104155
<https://doi.org/10.1016/j.breast.2025.104155>

P332

Oncological Safety and Patient Satisfaction of Immediate Lipofilling in Breast-Conserving Surgery: A Systematic Review and Subgroup Meta-Analysis Comparing Outcomes with No Lipofilling

A.S. Sahoo¹, M. Esho Eyidi¹, K.P.H. Zaw¹, R. Elayyan². ¹*School of Medicine, University of Central Lancashire, Preston, United Kingdom;*
²*Breast Surgery, Gateshead Health NHS Foundation Trust, Gateshead, United Kingdom*

Goals: We aimed to systematically evaluate the oncological safety and aesthetic outcomes of immediate lipofilling following wide local excision in breast-conserving surgery and comparing with no lipofilling.

Methods: A systematic search was performed across PubMed, MEDLINE, Embase, and Cochrane databases up to November 2024. The search strategy incorporated keywords including “Immediate Lipofilling,” “Immediate Lipomodelling,” “Immediate Autologous Fat Grafting,” “Immediate Autologous Fat Transfer,” “Wide Local Excision,” and “Breast Conserving Surgery.” A total of 49 studies were independently screened by two reviewers, resulting in the inclusion of 10 studies in the final analysis. The quality of the included studies was evaluated using the Newcastle-Ottawa Scale. Key outcomes assessed included cancer recurrence, recurrence site, patient satisfaction, complications, and surgical techniques. A subgroup meta-analysis was conducted to compare oncological outcomes between immediate lipofilling and no lipofilling groups. Additionally, patient satisfaction outcomes were analyzed between the two cohorts.

Results: A total of 10 studies involving 819 patients were analyzed, comparing immediate lipofilling (treatment group) with no lipofilling (control group) after breast-conserving surgery. Meta-analysis showed no significant difference in cancer recurrence rates between groups (RR: 0.97, 95% CI: 0.38–2.43), with recurrence rates ranging from 0–7.5% in the treatment group and 0–10% in controls. Funnel plot analysis showed no evidence of publication bias. Local recurrences were primarily observed in breast tissue and lymph nodes, with distant metastases being rare. Studies without control groups reported recurrence rates of 0–9.2%. Follow-up durations varied from 9.5 to 67.43 months, providing comprehensive long-term insights. Patient satisfaction, evaluated using tools such as Breast-Q and custom surveys, was consistently higher in the lipofilling group. Scores for aesthetic and functional outcomes showed significant improvement, with markedly greater satisfaction reported in the treatment group. Most studies utilized a combination of injection techniques, primarily focusing on peri-tumoral and subcutaneous fat placement.

Conclusions: Immediate lipofilling after breast-conserving surgery is oncologically safe, with local recurrence rates similar to standard procedures. It delivers superior aesthetic outcomes and high patient satisfaction.

The Breast 80S (2025) 104156
<https://doi.org/10.1016/j.breast.2025.104156>

P333

Advancements in pre-pectoral breast reconstruction: exploring direct-to-implant “coverless” technique

G. Grilz¹, S. Picotto², A. Ruggieri¹, A. Cicako¹, G. Giuffrida¹, G. Lo Moro³, R. Bussone¹. ¹*Breast Surgery, Ospedale Cottolengo, Torino, Italy;*
²*General Surgery, Torino, Torino, Italy;* ³*Department of Public Health Sciences and Paediatrics, Torino, Torino, Italy*

Goals: Advancements in treatment and surgical techniques have expanded the criteria for conservative mastectomies with implant-based reconstructions, considered oncologically safe. Several studies demonstrate the safety of direct-to-implant (DTI) reconstruction using polyurethane (PU)-coated implants or implants with Acellular Dermal Matrix (ADM). DTI is associated with a reduction in animation deformity, shoulder dysfunction, and post-operative pain. Application of DTI techniques increased during the COVID 19 era to optimize resources and reduce hospital time and outpatients’ follow-ups.

In this scenario, we developed a valid alternative to PU- and ADM-coated DTI reconstruction by introducing “coverless” breast implants. The aim of this present study was to report our experience in DTI reconstruction with a “coverless” technique.

The primary outcome was to retrospectively evaluate minor and major complication rates. Secondary outcomes were complications management, correlation with risk factors (radiotherapy, neoadjuvant and adjuvant therapies, clinical assessment) and postoperative quality of life.

Methods: We conducted a single-center retrospective study of 97 patients (126 breasts) operated from July 2021 to January 2024. We collected patient data, comorbidities, smoking history, radiotherapy, neoadjuvant or adjuvant therapy, lymphadenectomy, surgical data, complications rate and management, and quality of life. Every surgery was performed by an oncoplastic team following a standardized procedure.

Complications were categorized as early and late and we divided them in minor and major according to Clavien Dindo classification. Patients’ satisfaction rate and quality of life was assessed through the Breast-Q questionnaire.

Results: Minor complications rate was low (6–10%) and benefited from non-operative management. Major complications arise in a total of 7 cases (5.5%), two by previously irradiated breasts, two during adjuvant chemotherapy and one by a BMI of 19 and active smoking. Postoperative Q-scores showed a good quality of life impact.

Conclusions: Prepectoral coverless DTI reconstruction is a standardized, reproducible technique, with limited costs. Major complications rates are low and restricted to high-risk patients (previously irradiated breasts, adjuvant treatments). Postoperative quality of life is good with minimal discomfort. Future studies enrolling large populations could be useful to evaluate long-term complications and refine risk assessment and patient selection.

The Breast 80S (2025) 104157
<https://doi.org/10.1016/j.breast.2025.104157>

P334

Cavity shave technique versus intraoperative evaluation for safe resection margins in oncoplastic breast surgery: a randomized clinical trial

G. Vanni¹, M. Pellicciaro¹, M. Materazzo¹, O.C. Buonomo^{1,2}. ¹*Surgical Scienze, Rome Tor Vergata, Roma, Italy;* ²*Basilicata, Potenza, Italy*

Goals: In the modern era, oncoplastic breast surgery aims to conserving breast tissue ensuring both oncological and esthetic outcomes, however among the major challenges there is the risk of positive margins which then require a second surgery. During the years various strategies have been adopted to minimize those risks