



Short-term Assessment of Aesthetic Outcomes of Parenchymal Rotational Flap Reconstruction for Breast Cancer

Thesis

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By

Maged Hussien Mahmoud Ali
(M.B.B.CH)

Supervised by

Dr. Mohamed Ibrahim Abdelaziz Mohamed

Professor of Surgery

Faculty of Medicine - Fayoum University

Dr. Ayman Mahmoud Abdelhamid Abdelkader

Lecturer of Surgery

Faculty of Medicine Fayoum University

Dr. Mohamed Mostafa Mohamed Farag

Lecturer of Surgery
Faculty of Medicine Fayoum University

Faculty of Medicine
Fayoum University

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ABSTRACT

Background: Surgical management of breast cancer has evolved significantly over the years, trending away from radical procedures, and moving towards those with complete resection of tumor while preserving normal parenchyma tissue thereby decreasing patient morbidity. This shift has allowed for improved aesthetic outcomes and quality-of-life for patients, while maintaining equivalent oncologic safety.

Objective: To evaluate the early aesthetic outcomes of four quadrants breast cancer using parenchymal rotational flap.

Patients and Methods: 20 female patients with breast cancer who were surgically managed with volume displacement oncoplastic techniques (matrix dermoglandular rotational flap) in Fayoum University Hospitals were included.

Results: Mean age in studied patients was 48.35 ± 8.32 years with a median age of 49.50 years ranging between 36 and 63 years. Among studied patients, 6 (30.0%) patients received neoadjuvant therapy. Regarding the site of tumor in studied patients, upper outer quadrant tumors were reported in 13 (65.0%) patients, upper inner quadrant tumor was reported in 3 (15.0%) patients, lower outer quadrant tumor was reported in 2 (10.0%) patients, and lower inner quadrant tumor was reported in 2 (10.0%) patients. Outer quadrant tumors were reported in 15 (75.0%) patients, and inner quadrant tumors were reported in 5 (25.0%) patients. Mean largest tumor diameter in studied patients was 2.93 ± 0.77 cm with a median largest tumor diameter 3 cm ranging between 2 and 4 cm. Mean number of positive lymph nodes in studied patients was 1.25 ± 0.91 with a median number of 1 lymph node ranging between 0 and 3 lymph nodes. Mean number of total lymph nodes in studied patients was 16.30 ± 3.34 with a median number of 17 lymph nodes ranging between 11 and 23 lymph nodes. Regarding ACR classification of breast density, 2 (10.0%) patients were classified as class A, 7 (35.0%) patients were classified as class B, 7 (35.0%) patients were classified as class C, and 4 (20.0%)

patients were classified as class D. A+D were reported in 6 (30.0%) patients and B+C were reported in 14 (70.0%) patients. The BCCT esthetic outcome was reported to be excellent in 2 (10.0%) patients, good in 12 (60.0%) patients, fair in 5 (25.0%) patients, and poor in 1 (5.0%) patient. The only reported complication was ecchymosis which was reported in 1 (5%) patient. Patients with B+C breast density had significantly better esthetic outcomes when compared to patients with A+D breast density ($P < 0.001$). Patients with outer quadrant tumors had significantly better esthetic outcomes when compared to patients with inner quadrant tumors ($P = 0.031$).

Conclusion: 70% of breast cancer patients who underwent oncoplastic surgery using the parenchymal rotational flap had good to excellent outcome with only 5% incidence complication. Glandular density and tumor location significantly affect the aesthetic outcomes of patients with breast cancer who underwent parenchymal rotational flap.