



ASSESSMENT OF THE WISE PATTERN TECHNIQUE IN THE SURGICAL MANAGEMENT OF BREAST CANCER CASES

Mohamed F. Asal, Islam M. Elsheikh, Khaled E. Barakat, Ahmed Nagi, Tarek A. Al-Fayoumi, Ahmed A. Abd El-Kader.

Surgical Oncology Unit, Department of Surgery, Faculty of Medicine, Alexandria University, Alexandria, Egypt.



Study Overview

- This prospective study evaluated the effectiveness and safety of the Wise pattern surgical technique in treating breast cancer in 100 Egyptian females with large, ptotic breasts. The research was conducted at the Surgical Oncology Unit of Alexandria Main University Hospital.

Study Population & Design

Patient Demographics

Parameter	Total (n=100)	TRM (n=56)	SRM (n=32)	Goldilocks (n=12)
Age (years)	52.19±10.28	50.80±8.69	47.78±6.58	70.42±4.74
BMI (kg/m²)	30.05±1.58	30.36±1.54	29.97±1.51	28.83±1.40
Distance: Suprasternal Notch to Nipple (cm)	33.09±2.67	32.75±2.82	33.62±2.54	33.25±2.22

Surgical Techniques Performed

- The study evaluated three distinct surgical approaches using the Wise pattern design:
 - Therapeutic Reduction Mammoplasty (TRM) – 56% of cases, utilizing an inferior pedicle or superior medial pedicle with breast-conserving principles
 - Skin-Reducing Mastectomy (SRM) – 32% of cases, with reconstruction options including latissimus dorsi (LD) flap, implants, or tissue expanders
 - Goldilocks Mastectomy – 12% of cases, utilizing lower lipodermal flap for reconstruction

Results & Clinical Outcomes

Complications

Complication Type	Total (%)	TRM (%)	SRM (%)	Goldilocks (%)
Overall Complications	70.0	62.5	84.4	66.7
Seroma	48.0	33.9	68.8	58.3
Wound Dehiscence	19.0	17.9	15.6	33.3
Flap Necrosis	9.0	10.7	6.3	8.3
Nipple Necrosis	6.0	5.4	6.3	8.3
Fat Necrosis	7.0	10.7	3.1	0
Infection	4.0	3.6	6.3	0
Lymphedema	8.0	10.7	6.3	0

- Key Finding: SRM patients had the highest complication rate (84.4%), primarily driven by increased seroma formation (68.8%). TRM showed the most favorable complication profile at 62.5%.

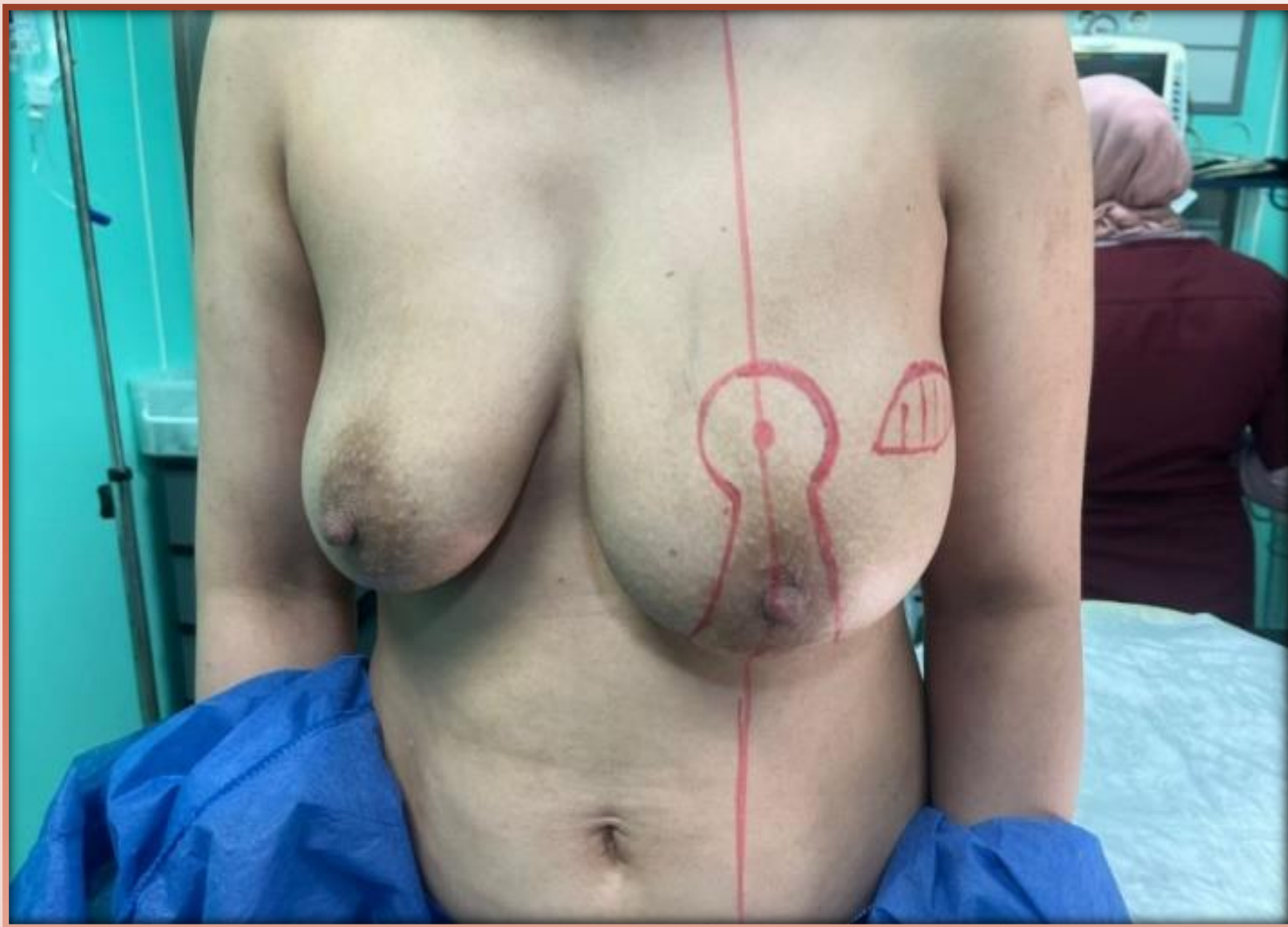
Cancer Recurrence & Mortality

Outcome	Total (%)	TRM (%)	SRM (%)	Goldilocks (%)
No Recurrence	90.0	91.1	84.4	100.0
Local Recurrence	4.0	3.6	6.3	0
Distal Metastasis	4.0	3.6	6.3	0
Survival (No Mortality)	97.0	98.2	96.9	91.7

- Key Finding: The Goldilocks mastectomy group achieved 100% disease-free survival, while overall mortality was low at 3%, highlighting the effectiveness of the technique across surgical approaches.

Tumor Characteristics

- Invasive Ductal Carcinoma (IDC): 80.0% overall (82.1% TRM, 78.1% SRM, 83.3% Goldilocks)
- Invasive Lobular Carcinoma (ILC): 11.0% overall
- Axillary Lymph Node Metastasis: 65.0% overall (69.6% TRM, 56.3% SRM, 25.0% Goldilocks)
- Neoadjuvant Therapy: 40% of participants (53.6% TRM, 31.3% SRM)



Wise pattern design for a case of left breast cancer



Wisepattern design for superior TRM

Clinical Significance

- The Wise pattern technique, originally developed for breast reduction and mastopexy, has been successfully adapted for oncoplastic breast surgery in patients with large, ptotic breasts. This approach combines oncological principles with cosmetic optimization, enabling more extensive tumor resections while maintaining acceptable aesthetic outcomes and patient satisfaction.

Conclusion

- The study demonstrates that the Wise pattern technique offers favorable oncological outcomes with acceptable complication rates and excellent long-term disease control, making it an effective approach for managing breast cancer in patients with large-sized ptotic breasts. The 90% disease-free survival rate and 97% overall survival rate support its use as a reliable surgical option that balances cancer treatment with cosmetic considerations.