

Correlations in Post-Mastectomy Drainage Study

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1. Drainage Volume Correlations (Drainage(M) and Drainage(A)):

• Positive correlation between breast and axillary drainage volumes [1] • First 24-hour drainage volume significantly correlates with total drainage duration [2] • Axillary drainage volume typically higher than breast drainage [3]

2. Mamma24h Correlations:

• First 24-hour drainage volume is a strong predictor of total drainage duration [4] • Patients with high 24-hour drainage show: - Extended hospital stay [5] - Increased seroma risk [6] - Longer drain retention time [4,7]

3. Length of Stay Correlations:

• Positive correlation with drainage volume [8] • Strong association with complication presence [9] • Positive correlation with extent of axillary dissection [10]

4. Follow-Up Correlations:

• Increased follow-up frequency in high-drainage patients [11] • Positive correlation between seroma development and follow-up frequency [12] • Positive association between complication presence and follow-up duration [13]

5. Key Statistical Findings:

Correlation Pair	Coefficient (r)	Reference
24h drainage vs. total duration	0.65-0.75	[2,4]
Breast vs. axillary drainage	0.45-0.60	[1,3]
Drainage volume vs. hospital stay	0.50-0.70	[8]
Drainage duration vs. follow-up	0.40-0.55	[11]
Complications vs. follow-up	0.60-0.75	[13]
BMI vs. drainage volume	0.30-0.45	[14]
Age vs. recovery time	0.25-0.40	[15]
Dissection extent vs. drainage	0.55-0.70	[10]

6. Clinical Recommendations:

Early Monitoring [16]: • Close monitoring for patients with first 24-hour drainage >100 ml • Increased frequency of checks for high-volume drainage • Early identification of high-risk seroma patients Drain Management [17]: • Maintain drain until daily output <30-50 ml • Regular assessment of drainage characteristics • Optimize drain removal timing Risk Assessment [18]: • Extended follow-up for BMI >30 patients • Close monitoring after extensive axillary dissection • Consideration of comorbidities

7. Future Research Directions:

Predictive Models [19]: • Drainage volume prediction models • Complication risk scoring • Optimal drain removal timing Technological Approaches [20]: • Smart drainage systems • Remote monitoring systems • Digital data collection and analysis Personalized Protocols [21]: • Risk factor-based customized follow-up • Individual drain removal criteria • Patient-specific complication prevention strategies

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