Post-Operative Day #1 Discharge in Deep Inferior Epigastric Perforator (DIEP) Flap Breast Reconstruction

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Payments of any denomination – public record on Open Payments Site

General Payments - None
Research Payments – None
Ownership and Investment Interest - None
Associated Research – None
Background
Background

• **Autologous breast reconstruction:**
  • Focus shifted from flap survival → improved patient outcomes

• **Major drawbacks:**
  • Prolonged operative times and length of hospital stay

• **ERAS decreased length of stay w/o increased postop morbidity** \(^1-^5\)

• **Purpose:**
  • Evaluate POD1 discharges and identify factors associated w/ earlier discharge
Methods
Methods

• IRB Retrospective Review

• Single institution (Atrium Health, Charlotte NC)

• Pts undergoing DIEP breast reconstruction 1/2019 - 3/2022

• 2 Groups: POD1 discharges versus all others (POD2+)
  • Welch’s 2 sample T-test to compare means between groups
  • Fisher’s Exact test to confirm independent samples were present
<table>
<thead>
<tr>
<th>Preoperative</th>
<th>Intraoperative</th>
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<tbody>
<tr>
<td>• Patient counseling regarding postoperative course and expectations</td>
<td>• Antibiotics given within 60 minutes of initial incision</td>
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<td>• CTA with perforator mapping and surgical planning</td>
<td>• Nerve Blocks (Liposomal Bupivacaine) administered in the abdominal region</td>
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<tr>
<td>• ERAS Protocol</td>
<td>and the chest intercostals</td>
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<td>• Lovenox administered morning of surgery</td>
<td>• Spy Angiography and ViOptix performed before dividing DIEP flap and after</td>
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<td></td>
<td>Day Inset</td>
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<td></td>
<td>• Prolonged monitoring in PACU for 4-6 hours with 1:2 nursing ratio</td>
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<td></td>
<td>• Clear Liquid diet</td>
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<td></td>
<td>• PO pain medications once transitioned out of PACU</td>
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<td></td>
<td>• Clinical exam during morning rounds</td>
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<td></td>
<td>• Advancement of diet</td>
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<td></td>
<td>• Discontinuation of ViOptix monitoring, IV fluids, and Foley catheter</td>
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<td></td>
<td>• Administration of Lovenox</td>
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<td></td>
<td>• Independent ambulation</td>
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<td></td>
<td>• Pain medications prescribed at same dose as given in the hospital (Gabapentin, Oxycodone, Ibuprofen)</td>
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<td></td>
<td>• Stool softeners</td>
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<td></td>
<td>• +/- Aspirin (surgeon preference)</td>
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<td>• Follow up appointment within 1 week</td>
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Results
### Results

<table>
<thead>
<tr>
<th></th>
<th>POD1 Discharge (n=23)</th>
<th>POD2+ Discharge (n=487)</th>
<th>P – value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI, mean (SD), kg/m²</strong></td>
<td>27.78 (5.42)</td>
<td>30.3 (5.44)</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Operative Time (min)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unilateral</td>
<td>237.6</td>
<td>293.8</td>
<td>.02</td>
</tr>
<tr>
<td>Bilateral</td>
<td>341.5</td>
<td>454.8</td>
<td>.01</td>
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</tbody>
</table>
Results

• No Major Complications in the POD1 Discharge Group

• Major Complications include:
  • Flap loss
  • Arterial Thrombosis
  • Venous Congestion
  • Hematoma
Discussion
Discussion

• 23 pts discharged on POD1
• CTA
• Preoperative Counseling
• Surgical Technique
• Post-Operative Monitoring
Predictors of Earlier Discharge

BMI

Operative Time

Operative Time (Minutes)

Bilateral

Unilateral

POD2+
POD1

Operative Time

0 100 200 300 400 500

Bilateral

Unilateral
Limitations and Future Directions

• Single institution

• Small population of POD1 patients

• Larger sample size and validated patient surveys in future

• "Cosmetic DIEPS"?
Conclusion

POD1 discharge is both feasible and safe in DIEP flap breast reconstruction patients
References


