sDTI Evolution: New Insights into Incidence & Intervention

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Faculty Disclosure

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Dr. Sullivan has no financial interest or arrangement that would be considered a conflict of interest.

Purpose

- Identify sDTI evolutionary patterns
- To explore the impact of contributing risks and co-morbid conditions
- Evaluate the feasibility of interrupting the evolutionary pattern and minimizing tissue damage through early intervention
Subjects & Settings

24 month IRB-approved retrospective study

- Inclusion criteria:
  - Hospitalized patients
  - 18 years or older
  - WOC RN identified sDTI
- 45 exclusions
  - Incomplete data (13)
  - Significant evolution on initial presentation (2)
  - Loss of follow-up (30)
- 77 subjects with a total of 128 sDTIs

Methods

Demographics
- Age
- BMI
- Race
- Risks
- Co-morbidities

Chart reviews used to assess:
- 1 day to 13 weeks = 377 encounters

Ulcer specifics
- Site
- Initial presentation
- Evolution pattern
- Measurements
- Tissue consistency
- Treatment

Who’s At Risk?

- Age: 67.5
- BMI: 27 (overweight)
- Gender: Male 67.5%
- Race: Non-Hispanic White 88.3%
Co-Morbidities

What We Already Knew

- Where to look:
  - Sacrum 39.8%
  - Heels 28.9%
- What to look for:
  - Purple/maroon discoloration: 89.8%
- What to do (redistribute the pressure):
  - Pressure Ulcer Bundle: 100%
  - Low Air Loss Bed Surface: 85.4%
  - Soft Silicone Foam: 75.7%
  - Offloading (pillows/boots): 24.2%
What We Observed

Window of Opportunity: Day 4

<table>
<thead>
<tr>
<th>APPEARANCE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blanchable redness</td>
<td>D4</td>
</tr>
<tr>
<td>Clean, non-granulating</td>
<td>W5</td>
</tr>
<tr>
<td>Slough</td>
<td>W10</td>
</tr>
<tr>
<td>Resolved</td>
<td>W11</td>
</tr>
<tr>
<td>Non-blanchable redness</td>
<td>D6</td>
</tr>
<tr>
<td>Eschar</td>
<td>W2</td>
</tr>
<tr>
<td>Granulation</td>
<td>W6</td>
</tr>
<tr>
<td>Purple/Maroon Discoloration</td>
<td></td>
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<tr>
<td>Blood-Filled Blister</td>
<td></td>
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<tr>
<td>Thin Blister/Dark Wound Bed</td>
<td></td>
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<tr>
<td>Clean Non-Granulating</td>
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</tr>
<tr>
<td>Scabbed</td>
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<tr>
<td>Non-Blanchable Redness</td>
<td></td>
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<tr>
<td>Blanchable Redness</td>
<td></td>
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<tr>
<td>Recovered</td>
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</tbody>
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What We Learned

We can interrupt sDTI evolution
- Early intervention
  - Evidence-based practice

Conclusions

- Deterioration is always a risk
  - One full thickness wound requiring flap closure
- sDTI prevention may be a matter of life and death
  - 46% expired within the 2 year evaluation period
  - Further research is needed to determine the significance
- Rejects the theory that sDTls “all progress to full thickness tissue loss”
- Recovery of injured tissue is a possibility
- Pressure redistribution/reduction is sufficient

Thank You!
Resources