OBESSE CARDIAC PATIENTS: SIGNIFICANT REDUCTION OF DEEP STERNAL WOUND COMPLICATIONS BY WEARING THE POSTHORAX VEST?

Objectives & Methods

- Sternal wound healing disturbances is a postoperative complication after median sternotomy especially in obese patients.

- Surgical wound revision and prolonged hospitalization increase the costs disproportionally.

- Prospective study 08/14 – 07/15: Median Sternotomy, BMI > 30kg/m²
  - n=129 Vest Group
  - n=131 Control Group (07/13-12/13)

Feasible reduction of sternal wound complication rate by the Posthorax vest?
Results

Deep sternal wound complication rate [%]  
\( p = 0.061 \)

Mobilization [%]
- Vest: 0, 1.pod, 2.pod, 3.pod, >4.pod
- Control: 0, 1.pod, 2.pod, 3.pod, 4.pod, >4.pod
Results

<table>
<thead>
<tr>
<th></th>
<th>Vest</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td>BMI [kg/m²]</td>
<td>34.8 ± 4.3</td>
<td>34.5 ± 4.2</td>
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<tr>
<td>Age [yrs]</td>
<td>65.7 ± 10.4</td>
<td>65.4 ± 11.2</td>
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<tr>
<td>IDDM/NIDDM [%]</td>
<td>46</td>
<td>45</td>
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<tr>
<td>OP time [min]</td>
<td>194.3 ± 55.8</td>
<td>196.3 ± 52.7</td>
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<tr>
<td>ventilation time [hrs]</td>
<td>&lt; 24h (0 - &gt;95) &lt; 24h (0 - &gt;95)</td>
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- COPD: p=0.053
- BITA: p=0.012
- psychosyndrome: p=0.002
- female: p=0.047

high risk for sternal wound complication [%] Vest

high risk for sternal wound complication [%] Control
Conclusion

1. Reduction of deep sternal wound complication rate in the Vest Group.

2. Limitation: Are the groups comparable concerning lower rate of COPD, psychosyndrome and female gender in est Group? Otherwise BITA rate is higher in Vest group.

3. Nevertheless Vest group shows earlier mobilization.

4. Since internal demonstration of our results every patient that underwent median sternotomy has to wear the Posthorax vest in order to reduce sternal wound complications and therefore costs.

Vielen Dank!
Dep. of Cardiothoracic and Vascular Surgery

- gute Aufklärung und Anleitung des Patienten essentiell

**Charts:**
- Weste: keine Weste versus Weste
- Beatmungszeit kumuliert

**OP-Eingriffe:**
- Klappenersatz
- Klappenwechsel
- Klappenskonstruktion
- Aortokoronarer Bypass
- Rekonstruktion des Herzkatheters
- Pulmonale Thrombendarteriektomie
- Plastik (Aortenersatz)