Cost Savings Using Generic Small Fragment Plating in Lateral Malleolus Ankle Fractures at a Level 1 Trauma Center

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INTRODUCTION

In 2016, the orthopedic trauma market was estimated to be over 5 billion dollars and the plate and screw market over 2 billion dollars. Due to rising costs, some orthopedists are using generic implants to offset rising costs without compromising clinical outcome. We present our cost savings experience using generic small fragment plating (ITS, Austria) for lateral malleolus ankle fracture fixation compared to conventional vendors.

HYPOTHESIS

Using ITS small fragment plating for lateral malleolus ankle fractures will prove to be more cost effective compared to conventional vendors.

MATERIALS/METHODS

Patients included Weber B or Weber C lateral malleolus ankle fractures treated with open reduction internal fixation at our trauma center. Fixation methods were grouped into conventional anatomic locked plating, conventional tubular plate fixation, or generic small fragment locked plating constructs. Groups included fractures that were treated with or without interfragmentary screw fixation and with or without syndesmosis fixation. Cost analysis included costs of the plates and screws only.

RESULTS

<table>
<thead>
<tr>
<th>Constructs Description</th>
<th>Cost Range per Case</th>
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<tbody>
<tr>
<td>Locked Conventional</td>
<td>$1150.83/case ($954.54 – $1331.76)</td>
</tr>
<tr>
<td>Non Locked Conventional</td>
<td>$553.65/case ($208.47 – $1010.64)</td>
</tr>
<tr>
<td>ITS Locking</td>
<td>$472/case ($389 - $559)</td>
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</tbody>
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- ITS Locking vs Conventional Locking
  - Difference of $678.83/case (p < 0.05)
  - 59% savings/case

- ITS Locking vs Conventional Non Locking
  - Difference of $81.65/case (p > 0.05)
  - 14.75% savings/case

CONCLUSION

Using ITS generic small fragment plating is cost effective reducing cost by nearly 60% when compared to conventional anatomic locking plates. There is no difference when compared to conventional non locking plate fixation.