The use of bone wax to slow continued bleeding from bone surfaces presents a cost-effective method to reduce PBL.

Perioperative blood loss (PBL) is detrimental to patients undergoing total hip arthroplasty (THA) using the direct anterior approach.

**Randomized controlled clinical trial**

- 152 patients undergoing THA
  - With bone wax (n = 75)
  - Without bone wax (n = 77)

**Primary outcomes**
- Apparent PBL
- Total PBL on postoperative days (PODs) 3 and 5

**Secondary outcomes**
- 90 day complications
- Transfusions

No differences in transfusion rates or postoperative complications.

**Using bone wax on the distal cut surface of the femoral neck represents a safe and inexpensive strategy to reduce PBL in patients undergoing THA using the direct anterior approach.**

<table>
<thead>
<tr>
<th></th>
<th>THA with bone wax</th>
<th>vs</th>
<th>THA without bone wax</th>
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</thead>
<tbody>
<tr>
<td>Apparent PBL</td>
<td>200 mL (p &lt; 0.001)</td>
<td></td>
<td>370 mL</td>
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<tr>
<td>Total PBL on POD3</td>
<td>505.2 mL (p &lt; 0.001)</td>
<td>747 mL</td>
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<tr>
<td>Total PBL on POD5</td>
<td>536.7 mL (p &lt; 0.001)</td>
<td>767.8 mL</td>
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</tbody>
</table>

The Efficacy of Bone Wax in Reduction of Perioperative Blood Loss in Total Hip Arthroplasty via Direct Anterior Approach. A Prospective Randomized Clinical Trial. Mortazavi et al. (2022) | DOI: 10.2106/JBJS.22.00376