Brachial plexus birth injury (BPBI) often results in loss of muscle function in upper limbs in infants. Clinical outcomes based on the timing of surgery are unclear, making the optimal time for surgical intervention debatable.

Patients with BPBI who underwent microsurgery (N = 118)

<table>
<thead>
<tr>
<th>Patients</th>
<th>Surgery before 6 months of age (n = 80)</th>
<th>Surgery after 6 months of age (n = 38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early surgery group</td>
<td>Late surgery group</td>
<td></td>
</tr>
</tbody>
</table>

Outcomes measured

- Injury
- Active Movement Scale (AMS) score
- AMS hand function subscore

Unadjusted analysis:
- Early surgery group
  - <6 months
  - More severe injuries at baseline
  - Lower postoperative AMS score

After adjusting for severity of injury:
- Early surgery group
  - <6 months
  - AMS score Equivalent
- Late surgery group
  - >6 months

Within patients with Narakas grade-3 or -4 injury:
- Early surgery group
  - <6 months
  - AMS hand function subscore Equivalent
- Late surgery group
  - >6 months

Nerve surgery before or after 6 months of age leads to similar motor outcomes in infants with BPBI.