Comparison of Postoperative Pain Control Methods
After Bony Surgery In the Foot And Ankle

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Disclosure

• No Conflict to Disclose
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Introduction

• Postoperative pain
  • Relationship between Surgeon and Patient
  • Severe pain after Bone surgery

• Purpose
  • To evaluate Effectiveness of US-nerve block (analgesic effect)
  • Comparison of between postoperative pain methods
**Material and Method**

- **Prospective comparative study**
- Between June 2014 and Sep 2015
  - All patients are operationed with preoperative **Sciatic and Femoral US-Nerve block (Anesthesia)**
    - 0.75% Ropivacaine + 0.2 % lidocaine (40ml)

- **Postop pain control (84 patients)**
  - **Group A** (n=30) : Fentanyl patch, 25mg immediately after the surgery
  - **Group B** (n=27) : Additional Sciatic nerve block
    - (0.2% Ropivacaine 30ml) at Op. night
  - **Group C** (n=27) : Ketorolac [Tarasyn], 30mg I.M, Every 8h Injection
Material and Method

• Postoperative **VAS score**
  • Postop 6, 12, 18, 24, 48hr

• **Exclusion Criteria**
  • Psychotic history, history of drug abuse
  • Incomplete VAS scoring for POD 48hrs
    • A : B : C group \((n) = 10 : 9 : 10\)

• **Statistical analysis**
  • SPSS software ver. 19.0
  • t-test and 1-way analysis of variance
## Material and Method

### Patients demography

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>30</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Age (range)</td>
<td>50.85 (19–62)</td>
<td>47.30 (21–67)</td>
<td>46.38 (20–79)</td>
</tr>
<tr>
<td>Gender, Men</td>
<td>17</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Fracture ; 17</td>
<td>Fracture ; 21</td>
<td>Fracture ; 17</td>
</tr>
<tr>
<td></td>
<td>Deformity correct ; 6</td>
<td>Deformity correct ; 4</td>
<td>Deformity correct ; 7</td>
</tr>
<tr>
<td></td>
<td>Others ; 7</td>
<td>Others ; 5</td>
<td>Others ; 3</td>
</tr>
</tbody>
</table>
Material and Method

- Additional US-Sciatic nerve block method
  - 0.2% Ropivacaine 30ml

- At OP night PM 8 ~10 O’clock
  - About 12 h after preoperative block
• Postoperative VAS score

Results

P < 0.05
Results

• Nerve block for **operative anesthesia**
  • Average **pain-free duration of 9.3 (range, 6.8–11.2) h**
    
    Kang C, KSSTA & Knee Surg Relat Res. 2015

• 1-time sciatic nerve block (**for analgesia**)
  • **About 12h relieve** severe pain during the acute phase

• Postop side effect
  • Group A (n=5) ; nausea & vomiting
  • **Group B & C ; non-specific**
Discussion

• **US-guided nerve block**
  - Learning curve
  - Visualized nerve & surroundings
    - Nerve damage rate↓
    - Block agents↓
    - Successfulness of nerve block↑
Conclusion

• Postop pain control by Additional Sciatic nerve block
  • Safe and Effectives
  • Low Side effect
  • Especially 1st OP night

• Surgeon-patient relationship
  • Relieving severe pain during the first night (acute phase)
References


9. Ramsay MA. Acute postoperative pain management. Baylor University Medical Center. Proceedings: Baylor University Medical Center; 2000. 244.

