Maxillary and Mandibular Anesthesia Techniques

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Gauge

- Interior diameter of the lumen of the needle
- The smaller the number, the greater the diameter of the needle
  - 25 ga. – 0.0095 inches
  - 27 ga. – 0.0075 inches
  - 30 ga. – 0.0060 inches

Length

- Long – 1 5/8 inches or 40 mm.
- Short – 1 inch or 25 mm.
Local Anesthesia Techniques

- Infiltration (Supraperiosteal)
- Nerve block
- Intraligamentary
- Intrapulpal
Maxillary Anesthesia

- Local infiltration (Buccal or palatal)
- Nerve block
  1. Posterior superior alveolar
  2. Infraorbital
  3. Greater palatine
  4. Nasopalatine (Incisive)
  5. Maxillary nerve (V2)

Clinical Technique

<table>
<thead>
<tr>
<th>Nerves anesthetized</th>
<th>Areas anesthetized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior superior alveolar nerve</td>
<td>Maxillary molars (except mesiobuccal root of first molar); buccal alveolar bone and soft tissues; lining of maxillary sinus corresponding to the molar teeth</td>
</tr>
<tr>
<td>Middle superior alveolar nerve</td>
<td>Mesiobuccal root of first molar, premolars; corresponding buccal alveolar bone and soft tissues; lining of maxillary sinus</td>
</tr>
<tr>
<td>Anterior superior alveolar nerve</td>
<td>Canines, lateral incisors, central incisors; corresponding buccal alveolar bone and soft tissues</td>
</tr>
<tr>
<td>Greater palatine nerve</td>
<td>Hard palate and overlying mucosa from molars to first bicuspids</td>
</tr>
<tr>
<td>Nasopalatine nerve</td>
<td>Hard and soft tissues of the entire anterior hard palate to the canines bilaterally</td>
</tr>
<tr>
<td>Infraorbital nerve</td>
<td>Lower eyelid, side of nose, upper lip; areas supplied by the middle and anterior superior alveolar nerves</td>
</tr>
</tbody>
</table>
Posterior Superior Alveolar Block (PSA)
MSA

Infraorbital
Greater palatine block

Nasopalatine (incisive) block
Mandibular Anesthesia

- Infiltration
- Nerve block
  1. Inferior alveolar / Lingual
  2. Mental
  3. Buccal
- Others (Alternates)
  1. Gow-Gates (High Mandibular)
  2. Akinosi (Closed-mouth)

Clinical Technique

<table>
<thead>
<tr>
<th>TABLE 16-5. Regional analgesia of the mandible</th>
</tr>
</thead>
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<tr>
<td><strong>Nerves anesthetized</strong></td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Inferior alveolar nerve</td>
</tr>
<tr>
<td>Lingual nerve</td>
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<tr>
<td>Long buccal nerve</td>
</tr>
<tr>
<td>Mental nerve</td>
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<tr>
<td>Incisive nerve</td>
</tr>
</tbody>
</table>
Proper techniques in IANB
Proper techniques in IANB

Mylohyoid branch
Long buccal

Gow Gates and Akinosi
Mental Nerve and Incisive Nerve Block