Resistant Trigeminal Neuralgia
Simple Interventional Neurolytic Block for
Peripheral Branches of Trigeminal Nerve

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Trigeminal Neuralgia

- Is a chronic pain condition that causes extreme, sporadic, sudden burning or shock-like face pain.

- The intensity of pain can be physically and mentally incapacitating.

- Episodes can last for days, weeks, or months at a time and then disappear for months or years.

- The attacks often worsen over time, with fewer and shorter pain-free periods before they recur.
The intense flashes of pain can be triggered by vibration or contact with the cheek (such as when shaving, washing the face, or applying makeup), brushing teeth, eating, drinking, talking, or being exposed to the wind.

TN occurs most often in people over age 50, but it can occur at any age, and is more common in women than in men.
The cause of TN is a blood vessel pressing on the trigeminal nerve in the head as it exits the brainstem.

TN may be part of the normal aging process but in some cases it is associated with another disorder, such as multiple sclerosis or other disorders characterized by damage to the myelin sheath that covers certain nerves.
Treatment

- Medication is the first universally accepted treatment option. But over a period of time their effectiveness may diminish and a surgical procedure required.

- In general, narcotics have not been recommended as first line therapy for TN, as they have not been found to be effective for the characteristics of TN pain.

- Carbamazepine is established as effective for controlling pain in patients with CTN (multiple Class I and II studies).
Radiotherapy
- Stereotactic Radiotherapy - Gamma Knife, Cyber Knife

Surgery
- Percutaneous Stereotactic Radiofrequency Rhizotomy (or Electrocoagulation).
- Microvascular Decompression - (MVD)

Interventional management
- Glycerol Rhizotomy
- Balloon Compression
- Female 70 years old, no medical illness
- Diagnosed Trigeminal Schwannoma many years ago
- Medical management with antineuralgia drugs many years outside of our center
- Referred to our center discussed in MDC & the decision to do Fractionated SRT - 54 gy/27fx
- For about 2 years followed with medical therapy

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
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<tbody>
<tr>
<td>Epanuitine</td>
<td>100mg/3</td>
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<tr>
<td>Amitryptiline</td>
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<tr>
<td>Carmazepine</td>
<td>400mg/2</td>
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<tr>
<td>Gapapentine</td>
<td>300mg/2</td>
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<tr>
<td>Celexocib</td>
<td>200/2</td>
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<tr>
<td>Tramadol</td>
<td>100mg/3</td>
</tr>
<tr>
<td>Lanzotec</td>
<td>15mg/1</td>
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The case became resistant to pharmacological Rx
MDC clinic (Oncologist, Radiotherapist, Neurologist, Neurosurgeon)
- Resistant case to Radiotherapy
- No role for surgery
- Gasserian ganglion radiofrequency
APS consultation (10 days after admission)

Examination:
- Temp-mandibular joint pain
- Occipital nerve massage decreasing her pain
- Lt temp_mandibular trigger point pain

Plan:
- Discussing the MRI with radiotherapist
  - temp_mandibular joint x-ray to RO pathology
  - CT cervical scan to RO occipital N compressing effects
    - Diagnostic blocks for occipital nerve plus temporomandibular joint
- If no improvement gasserian ganglion block
Blocks done with xylocaine 2% for occipital nerve & Temporo-Mandibular joint = No improvement

Planned for gasserian ganglion block with glycerol

Last done diagnostic block for peripheral branches of Trigeminal nerve for Ophthalmic & Maxillary nerves
- Neurolytic block for trigeminal division of opthalmic and maxillary nerves with alcohol 100% guided by nerve stimulator retro zygomatic area done

- Pain completely subsided in the distributed areas but remain at the mandibular area
Zygoma (cut away)

Pterygopalatine fossa

Maxillary n. (foramen rotundum)

Mandibular n. (foramen ovale)

Lateral pterygoid plate

Mandible (part removed to show peripterygoid relationships)
- **Side effects & complication** =

- Severe pain during the injection of alcohol
- Periorbital & Zygomatic area swelling
- **Efficacy** =
- The effect lasting 1-4 months
- Decrease consumptions of multidrug use
The patient was under care of Radio-oncology & Neurology clinic for 24 months
No pain assessment at clinical visit
Never pain consult for pain service
Lesson learned

- Concept of chronic pain as a disease to be treated at pain clinic still poor
- Assessment & documentation
- Some difficult chronic pain can be simply treated with easy simple blocks
- Showing Ur work & knowledge to other specialties
- Be human & honest with ur patient