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# **TRIGEMINAL NEURALGIA**

# PHYSICAL THERAPY

## ○ **Trans-Cranial Magnetic Stimulation**

- Is a technique for stimulating of the human brain
- A noninvasive stimulation technique (Repetitive Trans-cranial Magnetic Stimulation) may be suitable for the treatment of chronic neuropathic pain as it modulates neural activities not only in the stimulated area, but also in remote regions that are interconnected to the site of stimulation.

# PHYSICAL THERAPY

## ○ **Trans-Cranial Magnetic Stimulation**

- Prolonged pain relief can be obtained by repeating rTMS sessions every day for several weeks at 10 HZ frequency.



# PHYSICAL THERAPY

## ○ **Low-level laser (LLLR)**

- Produces photo-biochemical reactions that result in pain relief.
- Considering the effect of neurotransmitters on nerves, LLLR are expected to be effective in eliminating all kinds of pain that result from nerve irritation and nociceptor excitation (neuropathic pain).

# PHYSICAL THERAPY

## ○ Low-level laser (LLLR)

- Can reduce pain of inflammatory origin through their anti-inflammatory properties.
- LLLR has been shown to be effective in alleviating oral and maxillofacial pain.
- Laser causes pain relief without any side effects. It could be helpful especially in patients suffering from neuralgia tolerated to drug therapy.

# PHYSICAL THERAPY

- **TENS (transcutaneous electric nerve stimulation)**

- A non-invasive method that has gained momentum through the success in the treatment of peripheral nerve lesions such as stump pain and phantom limb pain, acute and chronic neuralgias caused by herpes zoster and spinal cord lesions.
- Combination therapy of drugs with TENS for neuropathic pain produces better outcome and also could be considered safe in geriatric patients.

# Advantages of TENS

- No Prostaglandins inhibition, since TENS controls pain by gate control mechanism.
- Rapid and timely inhibition of pain at peak progression.
- No adverse effects of drugs
- Non-invasive
- Short term treatment for 20-40 days when compared with long-term medicinal treatment.
- No need for surgical intervention.
- Doesn't need much expertise.
- Can be used at home with portable machine.
- Equally effective in post neurectomy and post injection alcohol neuralgia.

# TENS

- TENS is remarkably free from side-effects.
- The only common problem is related to an allergic dermatitis which the patient experience due to the adhesive tape holding the electrodes in patient. A mild erythema occur at the site of stimulation and if insufficient electrolyte gel is used a burning pricking sensation occur.
- The only absolute contraindication for using TENS is in patients with **pacemakers** or other implanted electrical devices, which may be affected by the field generated by the modulator.
- It is probably best not to use TENS in patients unable to understand the controls such as young children, the mentally retarded, or patients with senile dementia.