

TNA's 6th National Conference

Portland, OR

September 14-16, 2006

Summary compiled by the
Texas Support Group Leaders

Disclaimer

These notes are not intended to diagnose, prescribe, or to replace the service of your physician, but solely to give you information to enable you to make informed decisions about your care.

TN History

- ❑ Very old disease process (1677)
 - ❑ Tic Douloureux – Face contraction
 - ❑ Many Treatments tried
 - ❑ Age of onset usually late in life
 - ❑ May suddenly disappear
 - ❑ Women more than men 2:1
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TN Symptoms

- Electric shock-like pain
 - Only one side of the face
 - Trigger point
 - No movement component
 - No neurologic deficit or loss
-

TN Mis-diagnosis

- Very frequent misdiagnosis – *over* diagnosed
 - Dental pain – Jaw or mandible pain
 - TMJ pain
 - Atypical facial neuralgia
 - Post-Herpetic neuralgia
 - Glossopharyngeal neuralgia
 - Cluster headache
-

Initial Mis-Diagnosis & Delay to Initial Medical Therapy

- TNA survey (7600 patients)
 - >50% originally diagnosed as something other than TN
 - ~90% had pain for >1 year before correct diagnosis made
 - 13% went 10 or more years before correct diagnosis
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Ethics of TN Treatment - *Reality*

- In General, Physicians want to do the best they can for their patients
 - We live and exist in a flawed system
 - Physicians are human
 - Naiveté
 - Pride can blind them
 - Personal financial/business pressures
 - Institutions and 3rd party payers tend to be financially-driven and indifferent
 - Limit choices
 - Limit access
 - Pressure physicians
 - Pressure patients
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How To Talk To Your Doctor

- Be brief and to the point
 - Practice information you wish to convey
 - Avoid technical terms
 - Start with the most important information
 - Be specific
-

How To Talk To Your Doctor - History of the Present Illness

- Duration of pain
 - When did it start
 - What have you done to make it better
-

How To Talk To Your Doctor – Pain Characteristics

- Location
 - Intensity
 - What does it feel like?
 - Aggravating factors
 - Relieving factors
-

How To Talk To Your Doctor - Medications

- What are you on
 - What have you tried
 - Is it working?
 - Are you having side effects?
-

How To Talk To Your Doctor – Past Medical History

- What major illnesses have you had
 - What surgeries have you had
 - Dental history
 - How is your general health
-

Facial Pain and Medications

- All treatment algorithms suggest medical management before invasive treatment
 - Medications can be helpful
 - Medications can be a source of problems:
 - More pain (rebound)
 - Physical dependence/misuse
 - Side effects
 - Drug interactions
 - Toxicity
-

TN Medical Management

□ In general:

- Most patients will benefit from medical therapy
 - Many will require lifelong medical treatment
 - Some patients will require surgical treatment
 - Remain flexible
 - Walk hand-in-hand with neurosurgeon
-

Establish the Goal of Medication

- Decrease pain (intensity, frequency)
 - Improve sleep
 - Improve mood
 - Prevent pain
 - Increase activity (work, recreation, etc.)
-

Some TN Medications

carbamazepine (CBZ)

effective

oxcarbazepine (OXC)

effective

lamotrigine

likely to be beneficial

baclofen

likely to be beneficial

pimozide

trade off benefit/harm

topiramate

unknown effectiveness

tizanidine

unknown effectiveness

tocainide

harmful

Oxcarbazepine (OXC)

- ❑ Doses 300-1200 mg daily
 - ❑ OXC 300 mg = CBZ 200 mg
 - ❑ More effective than CBZ especially in decrease of evoked pain
 - ❑ Fewer side effects than CBZ
 - ❑ Hyponatremia dose related
 - ❑ Fewer drug interactions than CBZ
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Baclofen

- Doses 40-80 mg daily
 - No major drug interactions
 - Can use if patient is allergic to CBZ
 - Must increase and decrease drug slowly
 - Can be taken up to 3-4 times a day
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Lamotrigine

- Doses 200-400 mg daily
 - Effective as add on therapy
 - Can be taken twice daily
 - Safe in elderly
 - Few drug interactions
 - Side effects may include mood changes
 - Cannot rise dose rapidly due to rashes
-

Clonazepam

- Doses 2-8 mg daily
 - Lethargy, fatigue, dizziness very common and dose related
 - Need to check regular liver function
 - Must not be withdrawn rapidly
-

Gabapentin

- ❑ Dosage from 600-3600 mg per day
 - ❑ Generally better tolerated than CBZ
 - ❑ Need to take 3 times a day
 - ❑ Few drug interactions
 - ❑ Risks of tiredness, slowed thinking reduced if dose escalated slowly
 - ❑ High doses weight gain, ankle swelling
-

Intravenous Lignocaine

- 12 patients in 2 reports: 11/12 successful
 - 2-5 mg/Kg body weight
 - Limitations:
 - Have to be administered in hospital
 - Cardiac problem during infusion rare but may be life threatening
 - Cannot keep repeating the infusion
-

Subcutaneous Sumatriptan

- Very effective:
 - Average 8 hours
 - Pain gone in 12/24 patients
 - Few side effects
 - Further studies needed but useful for quick relief
 - Nasal spray also available
-

New Drugs for Potential TN Medical Management

- Namenda (memantine)
 - Easily added to a variety of medicines without problems
 - Will remain to be seen how helpful for TN
 - Campral
 - New and untried for TN
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Atypical TN and Opioids

- ❑ To adequately treat the high levels of pain with ATN high dose opioids are often required
 - ❑ Many, many physicians will not consider the doses necessary to be effective
 - ❑ In addition, much of the older literature wrongly stated that opioids simply would not work
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Atypical TN and Opioids

- ❑ The introduction of long-acting opioids without additives (ie acetaminophen) has helped immensely
 - ❑ Although somewhat surprising, Methadone is one of the older better choices to treat ATN
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Methadone

- ❑ Initially, Methadone had nothing to do with heroine
 - ❑ First produced by the Germans in WWII to treat high levels of pain related to war injuries
 - ❑ Unlike other opioids, Methadone will specifically work directly on the abnormal trigeminal nerve
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Opioid Therapy: Drug Selection

- Sustained-release opioids
 - Preferred because of improved treatment adherence and the likelihood of reduced risk in those with addictive disease
 - Extended-release preparations
 - Morphine, Oxycodone, Fentanyl
 - Methadone
-

Managing Side Effects of Opioids

- ❑ All opioid pain medications cause side effects
 - ❑ The most common side effects include constipation, nausea and vomiting, sedation and confusion, and pruritis (or itching)
 - ❑ The less common but serious side effects include respiratory depression, urinary retention, and liver irritation/failure
-

Managing Side Effects of Opioids

- ❑ Constipation occurs more commonly than most any other side effect (except possibly sedation)
 - ❑ Managed best by staying on a “regular bowel program”
 - ❑ Includes dietary help (i.e. fiber) and supplements such as Senekot
-

Managing Side Effects of Opioids

- ❑ May also require oral Dulcolax, Magnesium citrate or Lactulose
 - ❑ Suppositories and enemas (such as Fleet or Dulcolax) may be required
-

Managing Side Effects of Opioids

- ❑ Nausea and subsequent vomiting may be due to the opioids directly or to opioid-induced constipation
 - ❑ Most common anti-nauseants works well (i.e. Tigan or Zofran)
 - ❑ If the nausea does improve, **SLOWLY** taper the anti-nauseant
-

Transdermal Drug Delivery – Pluronic Lecithin Organogels

- Also known as a PLO gel
 - Transdermal delivery
 - An emulsion to penetrate the skin
 - Delivers medications quickly and locally
-

Transdermal Drug Delivery – What can you put in those guys?

- Anticonvulsants
 - Carbamazepine,
Phenytoin,
Gabapentin
 - Antispasmodics/
muscle relaxants
 - Baclofen,
Cyclobenzaprine
 - Anesthetics
 - Lidocaine,
Tetracaine
 - Antidepressant
 - Amitriptyline
 - Anti-inflammatory
 - Ketoprofen
 - Ketamine
-

Transdermal Drug Delivery – Typical Doses

- Gabapentin 6%
 - Ketamine 10%
 - Carbamazepine 2%
 - Amitriptyline 2%
 - Lidocaine 2-5%
-

Transdermal Drug Delivery – Examples of Combo Packs

- Gabapentin/lidocaine
 - Gabapentin/lidocaine/amitriptyline
 - Gabapentin/tetracaine/amitriptyline
 - Gabapentin/ketoprofen/amitriptyline/
baclofen
 - Many others
-

Transdermal Drug Delivery – Compounding vs. Manufacturing

Pharmaceutical Manufacturing

- No *specific* patient in mind
 - Prescribers match patients to the available product
 - Limited choices in drug dosages and dosage forms
 - How can we match the patient to the drug?
-

Transdermal Drug Delivery – Compounding vs. Manufacturing

Pharmacy Compounding

- Matches the dosage form to the patient's individual need
 - Administer the drug in the most effective dosage form
 - How can we deliver the medication to the patient?
-

Where do I get a compounded medication?

- ❑ A physician must write a prescription
 - ❑ The medication must be prepared by a compounding pharmacist
 - ❑ Information can be provided to the physician by a compounding pharmacist
 - ❑ Questions? Contact
 - Eric Stiverson, PharmD., Lloyd Center Pharmacy in Portland, OR
 - 800-358-8974
 - eric@lcrx.com
-

Botulinum toxin, type A (Botox)

- Brazilian study published in October 2005
 - Small # of patients = 13
 - By day 10, all had pain decreases
 - 4 of 13 were pain-free at 60 days
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Botox Observations

- Potential new technique
 - Numbers of patients in trial are small for TN
 - Seems to work better if there are discrete trigger zones
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Botox Unanswered Questions

- Not all typical TN
 - Dose and sites of injection?
 - Assessment methods?
 - Jaw weakness can be a problem
 - Frequency of injection and long term effects?
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TN Surgery

Non-destructive

- Microvascular decompression (MVD)
 - Goal of surgery is to mobilize offending vessels and place “cushion” between nerve and artery
 - Benefits of MVD
 - Immediate pain relief
 - Does not require trigeminal injury for success*
-

MVD Complications

<input type="checkbox"/> Facial numbness	2%
<input type="checkbox"/> Minor dysesthesia	0.2%
<input type="checkbox"/> Major dysesthesia	0.3%
<input type="checkbox"/> Corneal anesthesia	0.05%
<input type="checkbox"/> Permanent CN deficit	3%
<input type="checkbox"/> Peri-operative morbidity	10%
<input type="checkbox"/> IC hemorrhage or infarction	1%
<input type="checkbox"/> Peri-operative mortality	0.6%

MVD Long-Term Outcome

- Immediate post-operative
 - Complete relief 82%
 - Partial relief 16%
 - No relief 2%
- 1 year post-operative
 - Complete relief 75%
 - Partial relief 9%
 - Recurrence 16%
- 10 years post-operative
 - Complete relief 64%
 - Partial relief 4%
 - Recurrence 32%

MVD Case Series – Independent Observers

- Long term surgical outcomes
 - 70% pain free at 10 years
- 73% of patients say they should have had their MVD earlier
- 85% satisfied with outcome

Research Results – MVD for TN in Elderly Population

- Hypothesis: MVD for TN in elderly patients over the age of 75 is safe and efficacious in patients classified as American Society of Anesthesiologists Grade 1-4
- Conclusions:
 - Morbidity and mortality similar between patients over and under age 75
 - MVD should be considered in all patients with TN regardless of age

TN Surgery

□ Destructive Procedures

Least Destructive

Alcohol blocks

Stereotactic Radiosurgery (Dose dependent)

Glycerol rhizotomy

Balloon Compression

Radiofrequency rhizotomy

Nerve section

Most Destructive

TN Surgery – Destructive Procedures

- Outcome analysis of 175 published studies

- 9 used to evaluate pain relief
- 22 used to evaluate complications

■ Radiofrequency Rhizotomy	1,545
■ Radiosurgery	337
■ Glycerol Rhizotomy	145
■ Balloon Compression	50

TN Surgery – Destructive Procedures

- Radiofrequency Rhizotomy
 - Highest rate complete pain relief
 - Longest duration pain relief
 - Preferred procedure
- Balloon Compression
 - Highest complications
- Radiosurgery
 - Lowest complications
 - Shortest duration & incidence pain relief
 - <2/3 ever able to discontinue medications
 - Response time 4-8 weeks

TN Surgery – Destructive Procedures *Key Findings*

- ❑ Sensory loss is associated with long pain relief
- ❑ Results are best with 1st treatment
- ❑ Outcome best for typical TN
- ❑ Most long-lasting side effects are sensory and motor
- ❑ Anesthesia dolorosa (painful numbness) can occur after ALL procedures
- ❑ No deaths observed after radiosurgery

Radiofrequency Rhizotomy

Complications

- ❑ Major numbness (dysesthesia) 2%
 - ❑ Minor numbness (dysesthesia) 9%
 - ❑ Painful numbness 0.2%

 - ❑ Temporary jaw weakness 7%
 - ❑ Absent corneal reflex 3%
 - ❑ Temporary double vision 1%
 - ❑ Inflammation of cornea 0.6%
-

Radiofrequency Rhizotomy – Long-term Outcome

□ Patient tolerance of facial numbness

“not disturbing”	77%
“rare/mild disturbance”	15%
“occasional/moderate disturbance”	5%
“frequent/severe disturbance”	3%

Tew JNS 83: 989-93, 1995

TN Radiosurgery

- ❑ Destructive Technique
 - ❑ Reported success (no pain, no meds) after TN radiosurgery ranges from 10-59% depending on dose, length of follow-up
 - ❑ Factors associated with improved outcomes:
 - No prior surgery
 - Absence of constant pain, "atypical features"
 - *New trigeminal deficits after radiosurgery*
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TN Radiosurgery – Special Considerations

- ❑ Gamma knife is the most often used method with over 20,000 TN patients treated
 - ❑ Delayed response to radiation
 - Usually 2-6 weeks before response
 - 90% respond within 6 months
 - Occasional response up to one year
 - ❑ Patients advised to remain on medication until response noted
-

TN Radiosurgery

<u>Series</u>	<u># of pts.</u>	<u>Dose</u>	<u>Pain-free</u>	<u>New numbness</u>
Kondziolka, 1996	50	70 Gy	67% (2 yr) (+/- meds)	6%
Rogers, 2000	54	70 Gy	35% (1 yr)	9%
Brisman, 2004	293	76.8 Gy	10% (3 yr)	??
Maesawa, 2001	220	80 Gy	57% (3 yr) (+/- meds)	10%
Sheehan, 2005	122	80 Gy	34% (3 yr)	9%
Tawk, 2005	38	80 Gy	16% (2 yr)	37%
Richards, 2005 (LINAC)	28	80 Gy	57% (1 yr)	14%
Regis, 2006	100	85 Gy	58% (2 yr)	10%
Pollock, 2002	117	87 Gy	55% (3 yr)	37%
Smith, 2003 (LINAC)	41	90 Gy	45% (3 yr)	25%
Massager, 2004	47	90 Gy	59% (3 yr)	38%
Pollock, 2001	41	97.9 Gy	61% (2 yr)	54%

Selecting a Neurosurgeon – The Encounter

- Good first impression
 - Asks open ended questions
 - Spends adequate time
 - Explains diagnosis and supports it
 - Explains **options**
 - Answers questions
-
- Will this person still help me if the procedure fails?
-

Selecting a Neurosurgeon – Questions to Ask

- How many have you done
 - What types of complications have you seen
 - How do patients typically do
-

MVD Experience

- ❑ Harvard study, Neurosurgery, June 2003
 - ❑ 1500 MVD's, 277 surgeons, 305 hospitals
 - ❑ Looked at discharge other than home
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MVD Experience – Harvard Study

- ❑ Hospital does less than 5 MVD's per year, 5% of patients will discharge other than home
 - ❑ 6-19 per year, 3%
 - ❑ 20 or more, 1.6%
 - ❑ Risk is almost 1/3 lower after 20 years
-

MVD Experience – Harvard Study

- If a surgeon is doing 1 MVD per year, then 6% discharge other than home
 - 2-28 per year, 4%
 - 29 or greater, 0.5%
-
- In this study, 30 MVD's a year done by a neurosurgeon was the "magic" number
-

An Inconvenient Truth About Surgery for TN

No procedure is 100% effective

MVD = 15-20% Failure over time

Radiosurgery = 50% Failure over time

Glycerol, Radiofrequency, Balloon = 50-70% Failure over time

Dealing with the Inconvenient Truth About Surgery for TN

- ❑ Be aware in advance of failure rate of ALL procedures
 - ❑ Discuss with your neurosurgeon prior to procedure
 - ❑ Have a plan for what to do if procedure fails
 - ❑ Recognize that if you do not have classic TN the failure rate is higher
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What to do When Surgery Fails

- Don't give up!!!
 - Talk with your doctors!
 - Explore your options!
-

What to do When Surgery Fails

Options Available:

- Resume medications
 - TN may respond at lower dose
 - Repeat procedure
 - *How long to wait after Radiosurgery?*
 - Consider a different TN procedure
 - Explore Motor Cortex Stimulation
-

Motor Cortex Stimulation (MCS)

- ❑ MCS can be programmed to stimulate the surface of the brain continuously or cycled
 - ❑ Offers hope for potentially untreatable patients with trigeminal neuropathic pain
-

Motor Cortex Stimulation (MCS)

- ❑ Can be used as a trial prior to surgery
 - ❑ If successful in pain management, it can be implanted permanently
 - ❑ Electrodes are placed epidurally over the cortex of the brain
 - ❑ Wires are run under the skin, down the neck to the monitor in the abdomen
-

Motor Cortex Stimulation (MCS)

- Risks of Complications due to the electrodes placed on the surface of the brain
 - Infection
 - Difficulty programming
 - Less efficiency over time
 - Possible seizures
-

Motor Cortex Stimulation (MCS)

- Patient follow-up is every 6-9 months
 - As the brain recognizes the stimulator, it needs to be reprogrammed
 - After a stimulator is implanted, it is not suggested to have MRIs.
 - Batteries need to be changed occasionally which can be costly.
-

Physical and Emotional Impact of Chronic Pain

- Loss of appetite
 - Sleep disturbance
 - Altered posture
 - Decreased activity
 - Family dysfunction
 - Decreased libido
 - Mood alteration
 - Depression
 - Anxiety
 - Overall health status
-

How To Handle Your Pain?

- Talk with your doctor about your pain and all of its effects
 - Focus on aspects you can control
 - Don't compare yourself to others
 - Divide tasks, set realistic goals
 - Set aside time for yourself
 - Establish healthy approaches to activity, diet, sleep, stress
-

Options

- See a pain specialist
 - Psychological treatment
 - Activity program
 - Complementary/alternative treatment: tai chi, acupuncture, etc.
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What Not to Do

- Suffer needlessly
 - Give up
 - Limit yourself
 - Make your family suffer along with you
 - Accept “there isn’t anything to do for you...”
 - Think a pill will make it all go away
 - Focus on 1 treatment
 - Take a passive approach
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Loss of Sleep and Pain

- ❑ Ongoing sleep deprivation will increase the pain impulses produced via damaged tissue
 - ❑ Ongoing sleep deprivation decreases the ability for the central nervous system to process pain signals properly (more breakthrough pain)
 - ❑ Result is a large increase in perceived pain and necessity for more aggressive prescriptions
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Nutrition and Facial Pain

- *By eating a good diet you'll at least "help stack the deck in your favor"*
 - *Dr. Parker E. Mahan*

 - *Balanced nutrition can enhance the body's pain defense mechanism by enhancing the production of endogenous opioids (enkephalins, dynorphins, endorphins)*
 - *Dr. Henry Gremillion*
-

Nutritional Optimization - *Fish Oil/Omega 3 Fatty Acids*

- ❑ Inflammatory reactivity of the nervous system may be modulated by fatty acid intake
- ❑ Omega 6 fatty acids exacerbate pain
- ❑ Omega 3 fatty acids downregulate pain

Shapiro, H. *Prostaglandins Leukot Essent Fatty Acids*. 2003 Mar;
68(3):219-24

Nutritional Optimization – *B Vitamins*

- ❑ B vitamins are required for repair and regeneration of the nervous system
- ❑ Remyelination is dependent upon B vitamins
- ❑ Deficiency of B vitamins may upregulate neuralgia and worsen pain syndromes
- ❑ Vitamin B12 may have analgesic effect in neuralgic pain and historically has been used for TN

Schmerz. 1998 Apr 20; 12(2):136-41; Neurology. 1952 Mar-Apr; 2(2):131-9
Lancet. 1954 Feb 27; 266(6809):439-41

Forms of B12

- Cyanocobalamin – tablets at 1000 mcg per day
 - Hydroxocobalamin – injections 1 mg per day (?)
 - Methylcobalamin – compounded sublingual at 4 mg per day
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Magnesium

- ❑ Important role in nerve impulse transmission
 - ❑ Improves the action of anti-seizure drugs and morphine
 - ❑ Found in: coffee, tea, cocoa, nuts, spices, seafood, green leafy vegetables
 - ❑ Recommended: 600 mg/day
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Grapefruit Juice

- Preparations containing grapefruit flavonoids may interact with some drugs
 - Carbamazepine levels can be affected
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Garlic

- Sulfur based compound – allicin
 - Can activate pain sensors
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Food Triggers for Facial Neuralgias

- Chocolate
 - Citrus
 - Salty chips
 - Fatty foods
 - Aspartame
 - Nuts
 - Coffee
-

Facial Pain Triggering Foods

- ❑ Hot, cold, sweet, sour, bitter, tart
 - ❑ Spices: cinnamon, ginger, nutmeg, cloves, salt, pepper
 - ❑ Cool sensation foods: mint candies, menthol, eucalyptus cough drops, "Artic ice" gum, peppermint mouthwash
-

Prevention – Facial Pain Food Triggers

- Prerinse: 2% viscous lidocaine/Rincinol
 - Eat food and drink beverages at room temperature
 - Chew on unaffected side
 - If chewing becomes a problem, eat soft foods
 - If toothbrushing triggers pain, rinse mouth with water after eating
-

Meals

- ❑ Eat several (4-6) smaller meals
- ❑ Eat slowly, pausing between bites
- ❑ Keep meals 25 minutes long or less
- ❑ Quiet relaxed setting
- ❑ Avoid eating when tired or upset
- ❑ Good lighting so all food items seen
- ❑ Avoid talking while eating/swallowing

Jeff Searle, Kansas U. Med. Center

Food and Liquids

- Flexible straw for drinking
 - Soft, blended, pureed – easier to swallow
 - Avoid tough, dry, stringy
 - Thickened liquids (honey to milkshake) generally easier to swallow
 - Avoid acidic and spicy foods
-

"Pain Safe" Foods

- Brown rice
- Cooked/Dried fruits
 - Cherries, cranberries, pears, prunes
- Cooked Vegetables
 - Artichokes, asparagus, spinach, broccoli, chard, collards, lettuce, beans, squash, sweet potatoes

Bernard N. Foods That Fight Pain
Harmony Boos, 1998

“Soft” Foods to Consider

- Oatmeal
 - Cream of Wheat
 - Grits
 - Tapioca pudding
 - Rice pudding
 - Custard
 - Yogurt
 - Tender white fish
 - Slimfast, Ensure
 - Soymilk
 - Mashed potatoes
 - Sweet potatoes
 - Rice
 - Scrambled eggs
 - Spaghetti
 - Soups
-

Examples of Integrative Approaches

- Acupuncture
 - Biofeedback
 - Chiropractic
 - Craniosacral
 - Healing touch
 - Homeopathic
 - Massage
 - Mindbody
 - Music therapy
 - Naturopathy
 - Osteopathic
 - Personal or vocational counseling
 - Physical therapy
 - Reflexology
 - Reiki
-

Acupuncture's Benefit

- Increase beta-endorphins that reduce pain
- Decrease muscle spasm
- Decrease reliance on pain medications
- Decrease stress and anxiety
- Improve nerve healing

There are no published reports on studies done specifically on acupuncture and TN in the Western Medical literature.

When is Acupuncture NOT the appropriate therapy?

- ❑ Patients with initial onset of TN symptoms should have a complete neurological evaluation.
 - ❑ Tumors and vascular abnormalities should be ruled out or appropriately treated by standard medical techniques.
-

Acupuncture – What to Expect

- ❑ Treatments vary from practitioner to practitioner
 - ❑ On average, you will be seen 2-3 times a week for at least 2-3 weeks
 - ❑ Treatments begins with a comprehensive consultation including a medical history and physical exam
-

Acupuncture – What to Expect

- ❑ Should experience improvement by 5th or 6th treatment
 - ❑ May be combined with western medications to achieve optimal pain and symptom control
-

Acupuncture – What to Expect

- ❑ 3-20 needles will be used for each treatment
 - ❑ Needles are left in place from 15-30 minutes
 - ❑ Electrodes are sometimes attached to the needles to increase the acupuncture stimulation at those points
-

Acupuncture – What to Expect

- ❑ Costs vary depending on location & practitioner experience
 - ❑ Check with your insurance company about coverage
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Mindbody Techniques

- Breathing
 - Guided imagery
 - Disclosure
 - Mindfulness meditation
 - Yoga
 - Prayer
 - Social support
 - Biofeedback
 - Hypnosis
-

Mindbody Treatment Approach for Facial Pain

- Develop an integrative approach
 - Management of psychological issues
 - Specific coping skills training
 - Stress management
 - Recognize triggers and behavior stress patterns
 - Relaxation therapy
-

Temporomandibular Disorders (TMD)

□ Typical characteristics:

- Jaw, face pain that is dull, achy, often described as heavy pressure soreness
 - Pain can be minimal to excruciating and daily constant to brief less often than once a month
 - Made worse with jaw function (i.e. biting, opening mouth) and pressure to muscles and/or joint (i.e. touch to face)
-

Relationship Between TN & TMJ

- ❑ TN may be present with other facial pain disorders (TMD, headache, tooth disease)
 - ❑ Movement or use of the jaw (biting, opening wide) can be trigger for both TN and TMD pains
 - ❑ Typically the description of the pain (i.e. radiating, sharp-shooting, electric) help to distinguish these disorders
-

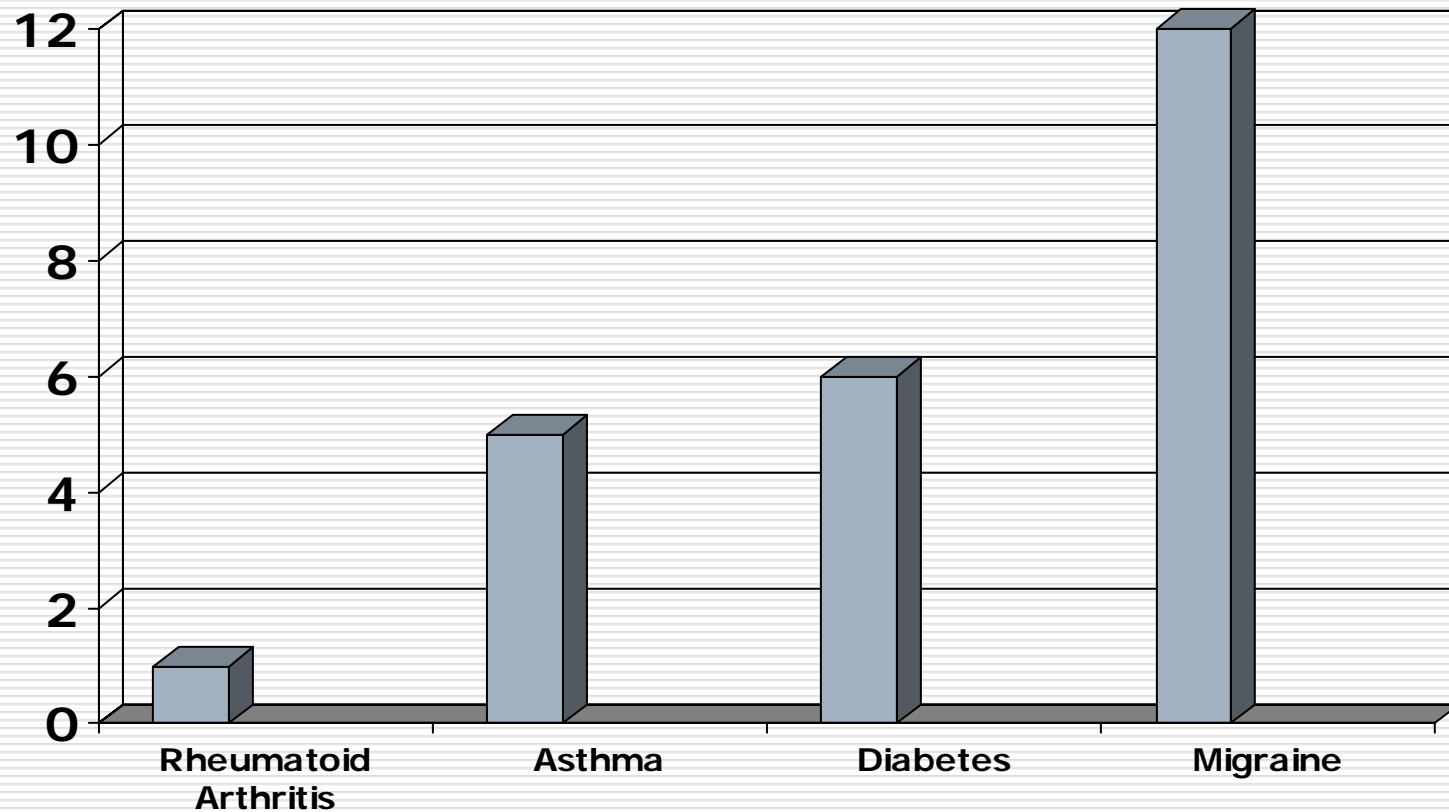
Burden of Migraine

- Migraine is a common and often debilitating neurological disorder
 - Affects ~18% of women and 6% of men
 - 53% reported that severe headaches caused significant impairment in activities or required bed rest
 - 62% reported having severe headaches more than once per month
-

Burden of Migraine

- ❑ Despite progress; the burden of migraine in the US remains substantial
 - ❑ Migraine remains under-diagnosed, under-treated, and misunderstood
-

Migraine is More Common than Asthma & Diabetes % Combined



Migraine Preventive Therapy Tips – Medication Use

- Initiate therapy with lowest effective dose
 - Increase slowly until clinical benefits are achieved
 - Give each treatment an adequate trial (2-3 months)
 - Avoid interfering medications
-

Migraine Preventive Therapy Tips – Patient Education

- ❑ Discuss the rationale for treatment, when and how to use, and potential adverse events
 - ❑ Set realistic expectations regarding expected benefits and timeframes
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Tips on Using Preventive Migraine Medications

- Use diary (patient to keep, physician to review)
 - Pain severity (0-10 scale)
 - Record medications taken and time and response
 - Monitor sleep pattern
 - Track functional response to acute medications
-

Multiple Sclerosis and TN

- ❑ 1-2% of people with MS have TN
 - ❑ 2% of people with TN have MS
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MS/TN Treatment

- Seizure medications
 - Carbamazepine
 - Phenytoin
 - Topiramate
 - Lamotrigine
 - Gabapentin
-

MS/TN Treatment

- Antidepressants
 - Duloxetine
 - Amitriptyline
 - Nortriptyline
-

MS/TN Treatment

- Gamma knife
 - Percutaneous rhizotomy
 - Microvascular decompression (MVD)
-

Anesthesia Dolorosa (AD)

- ❑ Persistent and painful numbness or partial numbness in the distribution of the trigeminal nerve
 - ❑ Nerve damage due to surgery
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Psychological Approach to AD

- Think positively
 - Do not let fear and isolation overwhelm you
 - Accept the pain
 - Take control
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Distraction to Deal with AD

- Divert your mind away from the pain
5-10 minutes may be all you need
 - Distraction requires concentration, so think of an activity that you get really absorbed in
 - Have a hobby
-

Dental Implants

- ❑ Question raised to dental panel:
Is there any problem with a classic TN patient getting a dental implant?
 - ❑ Answer from the dental panel:
If TN is on the same side of the face as the implant, an implant is not recommended. Rather a *Maryland* bridge is suggested.
If TN is on the opposite side of the face of the implant, then there should be no problem.
-

Burning Mouth Syndrome (Glossodynia)

- ❑ Diagnostic criteria not established
 - ❑ Symptoms are:
 - Burning, stinging sensation inside the mouth, most commonly the tip of tongue & lower lip
 - Pain is constant daily, lasting for weeks to years
 - Pain is made worse with touching the involved tissues, stress, spicy food
 - Co-occurring depression & anxiety are common
 - Taste changes, especially increased bitter, is common
-

Burning Mouth Syndrome (Glossodynia) Treatments

- First approach is to eliminate any and all potential organic causes for pain
 - After this, symptom management is next best approach
 - Medications
 - Behavioral Cognitive Therapy (CBT)
-

STEM CELLS FOR TN?

- Stem cells are immature and they can...
 - Sleep a lot; make copies of themselves
 - Generate a variety of different mature body cells
 - Try to repair in disease and after injury
-

Embryonic Stem Cells

Advantages:

- Grow indefinitely
- Give rise to all cells
- Amenable to Genetic Engineering
- Effective in Animal Models of Disease

Downsides:

- Bioethical evaluation
 - Difficult to generate
 - Rejection after transplanting
 - Can form tumors
-

Caregiver – How to be Physically Supportive

- Be an informed spokesperson
 - Adaptive communication
 - Nutrition
 - Accompany to Dr. appointment
 - Accompany to support group meetings
 - Handle insurance/job issues
-

Caregiver – How to be Physically Supportive

- Physical Relationships
 - Hygiene issues
 - Touch/not touch
 - Sexual considerations
-

Caregiver – How to be Physically Supportive

- Monitor activity level
 - Help with or take over chores
 - Allow as much independence as possible
 - Establish atmosphere for rest/sleep
 - Use distracting activities
 - Safe physical environment
-

Caregiver – How to be Emotionally Supportive

- ❑ Encourage medication/counseling as needed
 - ❑ Accentuate the positive when possible
 - ❑ Utilize spiritual resources
 - ❑ Lessen feelings of guilt and/or embarrassment
 - Educate others – family, friends, etc.
 - Be flexible
 - Realistic expectations
 - Handle fluctuating emotions
-

Caregiver – All About You

- ❑ As a caregiver, must take care of yourself, in order to preserve your physical and mental health
 - ❑ As a caregiver, you can not effectively help someone else unless you strengthen your own emotional and spiritual stamina
-

Online Resources for Caregivers and Spouses

- ❑ www.caregiving.com
 - ❑ www.caregiver.org/caregiver/jsp/home.jsp
 - ❑ www.nfcacares.org
 - ❑ www.ec-online.net
 - ❑ www.care-givers.com
 - ❑ www.caregiver.com
 - ❑ <http://go.to/ChronicPainSupport.org>
 - ❑ www.wellspouse.org
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Live every day like it's your last,
'cause one day you're gonna be
right

Ray Charles in *Esquire*