

Canada TNA Newsletter

August/September 2008

Canada TNA

Canada TNA (CaTNA) is a network of support groups and individuals who are dedicated towards sharing information and support to people who have Trigeminal Neuralgia and other facial pain. Membership in CaTNA is \$10 per year. Newsletters are available free by e-mail, and for \$6 per year by Canada Post. Contact: Canada TNA, c/o Jan Williams; 15 Everstone Dr. SW, Suite 207; Calgary,

AB, T2Y 5B5. Email: calgary@catna.ca; Phone: Phone: (403) 295-0987. Canada TNA is associated with the TNA Association in the USA.

The information in this newsletter is not intended to diagnose or offer advice on treatment of TN. Its sole purpose is to provide information so that you, working with your doctor, can make informed decisions about your own care.

Dental Health and TN



In June, Ms Elizabeth Harris, a Dental Hygienist in Calgary, spoke to the Calgary group and led a discussion on the difficulties some people with TN have maintaining good dental health. Everyone agreed

that it can be a challenge to clean one's teeth when the slightest touch can precipitate an attack.

Elizabeth suggested there are some things that might help with the daily cleaning regime:

- Use an extra soft toothbrush or Delicate post surgical brush
- Use waxed dental floss or dental yarn
- Use a Braun Oral-B electric toothbrush with extra soft heads
- Use a Teledyne Water Pik with warm water
- Brush and floss at a time of day when you are least likely to have TN
- Use an antibacterial fluoride rinse
- Use Prevent toothpaste or Sensodyne toothpaste (the original one) and don't rinse with water after brushing, just spit out the toothpaste and allow the fluoride film to stay on the teeth.
- Avoid using alcohol based mouthwashes

She also recommended the use of Peridex, an antimicrobial mouth rinse, for those times when the pain is just too severe to brush. Peridex requires a prescription from your dentist.

Elizabeth suggested there are some things you can do before and during a Dental Appointment to make things easier for you.

Before the Appointment:

- Try to schedule your appointment during pain remission
- Drink warm rather than hot or cold fluids, to avoid stimulating the nerves in your mouth
- Talk to your MD about increasing your TN medications for a few days prior to the appointment
- Make sure your Dentist and/or dental hygienists know you have TN and may have to cancel appointments on short notice if the TN becomes active. Ask for "short notice appointments".
- Take codeine or another analgesic several hours before your appointment.
- Switch local Anesthetics. Call your dental office to make sure that they have Mepivacaine 3%, Carbocaine 3% or Marcaine without epinephrine in stock.
- Request nitrous oxide, or oral sedation such as Atavan or IV sedation (Valium or Pentobarbital)

During the appointment

- Ask the dentist to inject the local anesthetic as far away from your trigger points as possible.
- Ask the assistant to replace the water bottle with warm water and use warm water to drink and “swish” with
- When having your teeth cleaned, you can ask the hygienist to apply topical anesthetics to the gum to decrease the sensations and ask to do the most sensitive part of your mouth last.

If you have any dental related questions, please forward them to me (Jan) and I will include your question and answer in future newsletters.

TNA Conference

TNA (Trigeminal Neuralgia Association) and Wayne State University School of Medicine, Department of Neurosurgery invite you to attend TNA's Seventh National Conference on September 12 and September 13, 2008. The conference will be held at the historic Dearborn Inn, Dearborn, Michigan.

If you are planning to attend, please let me know so that we can arrange to meet in person.

TN Review

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What is trigeminal neuralgia?

Trigeminal neuralgia (TN), also called *tic douloureux*, is a chronic pain condition that affects the trigeminal or 5th cranial nerve, one of the largest nerves in the head. The disorder causes extreme, sporadic, sudden burning or shock-like face pain that lasts anywhere from a few seconds to as long as 2 minutes per episode. These attacks can occur in quick succession. The intensity of pain can be physically and mentally incapacitating.

The trigeminal nerve is one of 12 pairs of cranial nerves that originate at the base of the brain. The nerve has three branches that conduct sensations from the upper, middle, and lower portions of the face, as well as the oral cavity, to the brain. The ophthalmic, or upper, branch supplies sensation to most of the scalp,

forehead, and front of the head. The maxillary, or middle, branch passes through the cheek, upper jaw, top lip, teeth and gums, and to the side of the nose. The nerve's mandibular, or lower, branch passes through the lower jaw, teeth, gums, and bottom lip. More than one nerve branch can be affected by the disorder.

What causes trigeminal neuralgia?

The presumed cause of TN is a blood vessel pressing on the trigeminal nerve as it exits the brainstem. This compression causes the wearing away of the protective coating around the nerve (the myelin sheath). TN may be part of the normal aging process—as blood vessels lengthen they can come to rest and pulsate against a nerve. TN symptoms can also occur in people with multiple sclerosis, or may be caused by damage to the myelin sheath by compression from a tumor. This deterioration causes the nerve to send abnormal signals to the brain. In some cases the cause is unknown.

What are its symptoms?

TN is characterized by a sudden, severe, electric shock-like, stabbing pain that is typically felt on one side of the jaw or cheek. Pain may occur on both sides of the face, although not at the same time. The attacks of pain, which generally last several seconds and may repeat in quick succession, come and go throughout the day. These episodes can last for days, weeks, or months at a time and then disappear for months or years. In the days before an episode begins, some patients may experience a tingling or numbing sensation or a somewhat constant and aching pain.

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. The pain may affect a small area of the face or may spread. The bouts of pain rarely occur at night, when the patient is sleeping.

Patients are considered to have Type 1 TN if more than 50 percent of the pain they experience is sudden, intermittent, sharp and stabbing, or shock-like. These patients may also have some burning sensation. Type 2 TN involves pain that is constant, aching, or burning more than 50 percent of the time.

TN is typified by attacks that stop for a period of time and then come back. The attacks often worsen over time, with fewer and shorter pain-free periods before they recur. The disorder is not fatal, but can be debilitating. Due to the

intensity of the pain, some patients may avoid daily activities because they fear an impending attack.

Who is affected?

TN occurs most often in people over age 50, but it can occur at any age. The disorder is more common in women than in men. There is some evidence that the disorder runs in families, perhaps because of an inherited pattern of blood vessel formation.

How is TN diagnosed?

There is no single test to diagnose TN. Diagnosis is generally based on the patient's medical history and description of symptoms, a physical exam, and a thorough neurological examination by a physician. Other disorders, such as post-herpetic neuralgia, can cause similar facial pain, as do syndromes such as cluster headaches. Injury to the trigeminal nerve (perhaps the result of sinus surgery, oral surgery, stroke, or facial trauma) may produce neuropathic pain, which is characterized by dull, burning, and boring pain. Because of overlapping symptoms, and the large number of conditions that can cause facial pain, obtaining a correct diagnosis is difficult, but finding the cause of the pain is important as the treatments for different types of pain may differ.

Most TN patients undergo a standard magnetic resonance imaging scan to rule out a tumor or multiple sclerosis as the cause of their pain. This scan may or may not clearly show a blood vessel on the nerve. Magnetic resonance angiography, which can trace a colored dye that is injected into the bloodstream prior to the scan, can more clearly show blood vessel problems and any compression of the trigeminal nerve close to the brainstem.

How is it treated?

Treatment options include medicines, surgery, and complementary approaches.

Anticonvulsant medicines—used to block nerve firing—are generally effective in treating TN. These drugs include carbamazepine, Oxycarbazepine, topiramate, clonazepam, phenytoin, lamotrigine, and valproic acid. Gabapentin or baclofen can be used as a second drug to treat TN and may be given in combination with other anticonvulsants.

Tricyclic antidepressants such as amitriptyline or nortriptyline are used to treat pain described as constant, burning, or aching. Typical analgesics and opioids are not usually helpful in treating the sharp, recurring pain

caused by TN. If medication fails to relieve pain or produces intolerable side effects such as excess fatigue, surgical treatment may be recommended.

Several neurosurgical procedures are available to treat TN. The choice among the various types depends on the patient's preference, physical well-being, previous surgeries, presence of multiple sclerosis, and area of trigeminal nerve involvement (particularly when the upper/ophthalmic branch is involved).

Some procedures are done on an outpatient basis, while others may involve a more complex operation that is performed under general anesthesia. Some degree of facial numbness is expected after most of these procedures, and TN might return despite the procedure's initial success. Depending on the procedure, other surgical risks include hearing loss, balance problems, infection, and stroke.

A *rhizotomy* is a procedure in which select nerve fibers are destroyed to block pain. A rhizotomy for TN causes some degree of permanent sensory loss and facial numbness. Several forms of rhizotomy are available to treat TN:

- *Balloon compression* works by injuring the insulation on nerves that are involved with the sensation of light touch on the face. The procedure is performed in an operating room under general anesthesia. A cannula is inserted through the cheek and guided to where one branch of the trigeminal nerve passes through the base of the skull. A soft catheter with a balloon tip is threaded through the cannula and the balloon is inflated to squeeze part of the nerve against the hard edge of the brain covering (the dura) and the skull. Balloon compression is generally an outpatient procedure, although sometimes the patient may be kept in the hospital overnight.
- *Glycerol injection* is generally an outpatient procedure in which the patient is sedated intravenously. A thin needle is passed through the cheek, next to the mouth, and guided through the opening in the base of the skull to where all three branches of the trigeminal nerve come together. The glycerol injection bathes the ganglion (the central part of the nerve from which the nerve impulses are transmitted) and damages the insulation of trigeminal nerve fibers.
- *Radiofrequency thermal lesioning* is usually performed on an outpatient basis. The patient is anesthetized and a hollow needle

is passed through the cheek to where the trigeminal nerve exits through a hole at the base of the skull. The patient is awakened and a small electrical current is passed through the needle, causing tingling. When the needle is positioned so that the tingling occurs in the area of TN pain, the patient is then sedated and that part of the nerve is gradually heated with an electrode, injuring the nerve fibers. The electrode and needle are then removed and the patient is awakened.

- *Stereotactic radiosurgery* uses computer imaging to direct highly focused beams of radiation at the site where the trigeminal nerve exits the brainstem. This causes the slow formation of a lesion on the nerve that disrupts the transmission of pain signals to the brain. Pain relief from this procedure may take several months. Patients usually leave the hospital the same day or the next day following treatment.

Microvascular decompression is the most invasive of all surgeries for TN, but it also offers the lowest probability that pain will return. This inpatient procedure, which is performed under general anesthesia, requires that a small opening be made behind the ear. While viewing the trigeminal nerve through a microscope, the surgeon moves away the vessels that are compressing the nerve and places a soft cushion between the nerve and the vessels.

Unlike rhizotomies, there is usually no numbness in the face after this surgery. Patients generally recuperate for several days in the hospital following the procedure. A *neurectomy*, which involves cutting part of the nerve, may be performed during microvascular decompression if no vessel is found to be pressing on the trigeminal nerve. When done during microvascular decompression, a neurectomy will cause permanent numbness in the area of the face that is supplied by the nerve or nerve branch that is cut.

Some patients choose to manage TN using complementary techniques, usually in combination with drug treatment. These therapies offer varying degrees of success. Options include acupuncture, biofeedback, vitamin therapy, nutritional therapy, and electrical stimulation of the nerves.

Support Group News

Calgary

Meetings are the 2nd last Tuesday of each month in the Health Sciences Center Building at the Foothills Medical Center. The next meetings will be **Tuesday, August 19 and Sept 23 at 7 pm** - Room G748. Contact Jan at 295-0987 or calgary@catna.ca for more information.

Regina

Contact Faye at (306) 751-0761 or regina@catna.ca for meeting information.

Saskatoon

Meetings are held the second Sunday of each month. Contact Dee at (306) 382-5666 or Saskatoon@catna.ca for meeting information.

Toronto

Contact Kathy at (905) 853-9849 or Sandra at (905) 284-9215 or both by e-mail at Toronto@catna.ca for meeting information.

Toronto chapter would like to thank everyone who has made donations to our group this year. Our garage sale raised \$78. Donations are used to print brochures, photo copying and the rental of our meeting room.

Niagara Region

Contact Brenda at (905) 937-6178 or Niagara@catna.ca for meeting information.

Peterborough

Contact Marilyn at (705) 742-1486 or peterborough@catna.ca for meeting information.

Winnipeg

Contact Marion at (204) 697-9459 or Pat at (204) 269-2003 by phone or email at Winnipeg@catna.ca for meeting information. The next meeting scheduled for Sept 11th at 7 pm - Health Sciences Center.