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TRIGEMINAL NEURALGIA

➤ WHAT IS TRIGEMINAL NEURALGIA?

- Trigeminal neuralgia (TGN) is an agonizing shooting pain in the face. It starts suddenly on one side of the face. It is more common in older persons but can occur at any age.
- Attacks last for a few seconds to a few minutes. Everyday things can "trigger" an attack, such as touching the face, chewing, brushing teeth and eating, or even a breeze blowing on the face.
- There can be long periods between attacks (pain free periods) lasting for months or years. Over time the pain tends to become more severe and attacks more frequent and may not respond as well to Carbamazepine (Tegretol®).

WHAT CAUSES TRIGEMINAL NEURALGIA?

- The precise reason for the pain is not fully understood in all cases. Sometimes the layer of insulation around the nerve can become damaged, for example in Multiple Sclerosis.
- However, many cases of TGN are caused by a blood vessel pressing on the trigeminal nerve. Because of this, the nerve doesn't work properly and starts to send incorrect signals. These signals are sent to the brain when the face is touched, or when eating, or due to other "triggers", leading on to perception of severe pain.
- The pressure on the nerve can be relieved by an operation. This often, but not always, relieves the pain permanently. Many patients are very satisfied with this treatment, which is called Microvascular Decompression.

IS THERE ANY TREATMENT AVAILABLE?

- If your own doctor or dentist does not know the cause of your face pain, ask him to refer you to a pain clinic or neurologist (a nerve specialist). A correct diagnosis is very important.
- The usual painkillers, such as ibuprofen, codeine and paracetamol, which can be bought at the chemist, have no effect on the nerve pain of TGN. However other drugs and various operations are available which help a great deal.

DRUGS

- Drugs used to treat epilepsy (anticonvulsants) calm the irritable trigeminal nerve, eg. carbamazepine (Tegretol®). This does not mean you have epilepsy.
- These drugs may cause side effects. You may feel unwell, drowsy or develop a rash.
- These drugs must be taken regularly for them to work and not just when the pain is bad. They will probably need to be taken permanently, not just for a short time.
- Gabapentin or pregabalin (Lyrica®) are similar drugs, which are less effective than carbamazepine, but they have fewer side effects. These are used if you can not tolerate carbamazepine.
- Pain may be controlled with such drugs for many years. Sometimes more than one drug is needed. However, pain control may be reduced over time and then other treatments need to be considered.

MICROVASCULAR DECOMPRESSION

- TGN is often caused by a blood vessel pressing on the trigeminal nerve inside the skull. This pressure can be removed by a procedure called Microvascular Decompression.
- Special scans (Tomo-angiography and MRI) can show the position of the blood vessel. If the vessel is pressing on the nerve, an operation can be done to lift the vessel away from the nerve.

- The operation requires a general anaesthetic and a stay in hospital for a number of days. It is performed through a small opening in the skull behind the ear. This operation gives permanent pain relief in most cases. However, this is a major operation, but, commonly performed at The Walton Centre by Neurosurgical team.

OTHER PROCEDURES

- Destroying part of the trigeminal nerve in the face, or nerve structures deeper in the skull, can prevent pain messages reaching the brain. These procedures are called **neuroablative procedures**.
- **Glycerol Rhizotomy:** Glycerol is injected to damage the nerve. This can be done using a local anaesthetic.
- **Balloon Compression Rhizotomy:** An inflatable balloon is inserted through the needle. The inflated balloon then presses down on the nerve and damages it. A general anaesthetic is needed for this. You may be discharged home on the day of the procedure.
- **Radiofrequency thermocoagulation or diathermy:** Heat is applied using an electrode inserted through foramen ovale (natural opening in skull). The nerve is heated in increment to the desired effect. This is done using a mixture of local and general anaesthetics. The patient is awake some of the time, in order to help place the electrode and confirm if it is in correct place. Often pain relief lasts many years and if required can be easily repeated.

TARGETED RADIOTHERAPY OR GAMMA KNIFE TREATMENT

- This treatment is also available at The Walton Centre. The nerve is damaged by focusing a beam of radiation, from outside the head, onto the nerve. It is still not known how well this works or how much other tissues are damaged. The effects of radiation must also be taken into account. This treatment still damages the nerves, however, it does not involve an operation.

- Drugs will be the first line of treatment recommended by your doctor. If these do not work, stop working or have bad side effects, then you will need to consider the other treatments. Doctors always prefer to use non-destructive treatments if possible. Treatment should be discussed with your specialist, who will explain the risks and benefits.

WHERE TO GET HELP AND SUPPORT

Trigeminal Neuralgia Association UK, www.tna.org.uk Tel. 01883 370214 Email: help@tna.org.uk. Provides information about TGN and support for patients

British Brain and Spine Foundation, www.brainandspine.org.uk Helpline 0808 808 1000. Provides a very informative booklet about Face Pain

The British Pain Society, www.britishpainsociety.org 3rd Floor, Churchill House, 35 Red Lion Square, London WC1R 4SG. Tel. 0207 269 7840. Can provide a booklet "Understanding and Managing Pain: Information for Patients."

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This booklet was written by the staff of the Pain Relief Foundation and endorsed by The Walton Centre Pain Team, Walton Centre for Neurology & Neurosurgery, Lower Lane, Liverpool, L9 7LJ, UK . www.thewaltoncentre.nhs.uk

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Disclaimer: If you have a pain problem which needs treatment you must contact your own doctor. He can refer you to a pain clinic in your area. This leaflet is for information only and should not be treated as a substitute for the medical advice of your doctor. The Pain Relief Foundation cannot offer individual medical advice.