



Considering surgery for TN

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There are no relevant studies to clearly define when it is time to move on from medication to surgery. Practically, it is either when medications are not working anymore, or when side effects become intolerable. It is a patient's choice, and it has to be discussed with a neurosurgeon.

Prior to a surgery, you may be asked to have an MRI or MRA scan. It will help the neurosurgeon to rule out any other condition, and perhaps see the possible cause of the pain.

There are different types of surgical options. Here is a very brief summary on each possibility, their advantages and disadvantages.

MICROVASCULAR DECOMPRESSION (MVD)

This is considered as major surgery. An opening is made on the back of the head, just behind the ear. The skull is then opened with a drill, and an operating microscope is introduced. The surgeon carefully moves away any blood vessels and arteries compressing the nerve, and places small pieces of teflon padding along the nerve to protect it. The stay in hospital is about a week .

PERCUTANEOUS PROCEDURES

These are considerably less invasive and are performed on the trigeminal nerve ganglion where the nerve divides into its three main branches. Surgeons reach the ganglion by inserting a needle through the cheek, then through an opening in the bone where the lowest branch of the trigeminal nerve enters the face. They may then:

- heat the branch (Radiofrequency Rhizotomy)
- inject a substance which gradually destroys the branch (Glycerol injection)
- inject a substance which will freeze the branch (Cryosurgery)
- compress the branch with a small balloon (Balloon compression)

All the above procedures selectively damage the nerve in order to interfere with the transmission of the pain signals to the brain, and will cause varying degrees of numbness. They are however, much more straightforward interventions, only necessitating a few hours stay in

hospital .

GAMMA KNIFE (RADIOSURGERY)

We can also add to that list a fairly new procedure called GAMMA KNIFE. This technique uses precisely targeted beams to selectively damage the nerve or its branches with radiation. It is obviously very attractive for the patient as it is non-invasive, painless and requires no anaesthesia. However, as yet there are no statistics on the long term effects of the procedure, and it is only available at three hospitals in the UK. The Cromwell Hospital in London, the London Radiosurgical Centre and the Royal Hallamshire Hospital in Sheffield).

COMPARING THE DIFFERENT PROCEDURES

MVD

Disadvantages:

major surgery, and therefore complications may occur, including hearing loss, dizziness or death (less than 1%).

Advantages:

Numbness is very unusual. The effect of the surgery is longer : after 5 years, 75% of the patients are still free of pain.

PERCUTANEOUS PROCEDURES

Disadvantages:

It always causes some numbness, and the degree of numbness is impossible to predict. The effectiveness on the pain is shorter than with an MVD : the average is 1 to 2 years. Some people will have relief for a few days, some for 5 or 6 years... Once again, it is unpredictable.

Advantages:

It nearly always works with classical TN, and can be repeated. The hospital stay is minimum with very few risks: less than 1% have severe complications.

CONCLUSION

It is still very difficult to decide on one or other surgical procedure because we need more accurate figures to be able to make the right decision.

There is a common pattern for treatment advice: neurosurgeons usually recommend an MVD for young and fit patients, and one of the percutaneous procedures for older ones. However, if an older patient is fit enough, he could certainly have an MVD.

The most important is to be sure to have been given the correct diagnosis :

Do I really have TN and not any other facial pain?

Once this is clear, then you can move on :

- Do I have all procedures available to me? It is important to have the choice.
- Do I have good advice ?
- Do I have enough information to be able to compare the efficacy of all treatments ?
- Am I prepared to deal with all possible side effects ?

The best person to talk to is your neurosurgeon. You can ask him about his experience on the surgery you are considering, and what is his success rate. No surgeon and no technique has a 100% record of success rate. "Every patient should be warned that recurrence is possible after surgery" says Dr. Zakrzewska. Studies show that the more experienced the neurosurgeon, the fewer the complications. So do not be afraid to question the neurosurgeon!

It is also useful to talk to other patients who have had surgery. Our contact list gives information when possible, so do not hesitate to use it. If you do not have the list or wish to obtain more details on surgeries, please contact us.

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