Patient

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Hemifacial spasm

Hemifacial spasm is a condition that affects half of your face. It usually starts with a twitching around one eye. It may gradually involve your mouth also. There are different types of treatment. Although the condition is not dangerous, it can affect quality of life.

What is hemifacial spasm?

A spasm is a sudden, involuntary contraction (tightening, or twitch) of a muscle or a group of muscles. Hemifacial means half of the face.

The muscles of the face are all controlled by the facial nerve. The facial nerve is also known as the seventh cranial nerve. There is a facial nerve for each side of the face. It starts deep inside your brain and makes its way past many structures to reach the face. The facial nerve carries signals from the brain to make your facial muscles contract or relax. For example, the facial nerve makes you blink, twitch your nose and pout your lips.

If something presses on the nerve somewhere along its course, it can affect how the signals are carried to the face. This may cause muscles to twitch (or contract), or to go into spasm, when you don't want them to.

More temporary twitches of the muscles of the face are NOT hemifacial spasm. For example, habit tics and twitches affecting the face, and muscle spasms around the eyes (blepharospasm) are different conditions. In these other conditions both sides of the face are usually affected.

How common is hemifacial spasm?

Hemifacial spasm is a rare condition. In the UK there are thought to be about 4,000 people with hemifacial spasm. It affects men and women, although women tend to be affected slightly more often than men. Symptoms usually start in middle age, the average age of onset being 45 to 52 years old.

Hemifacial spasm causes

The cause of hemifacial spasm is not fully understood. At the moment, doctors believe the most common cause is a blood vessel pressing on the facial nerve at the base of the brain, the brainstem. Rarely other structural abnormalities, such as injury to the facial nerve or a tumour, can cause hemifacial spasm. There are other causes too such as infections or strokes. Sometimes there is no obvious cause and doctors may then call it idiopathic hemifacial spasm. Idiopathic means 'of unknown cause'.

Is hemifacial spasm inherited?

Because the causes of hemifacial spasm are not inherited, it is unlikely that you will pass the condition on to your children.

Hemifacial spasm symptoms

Twitching usually begins around the eye. At first the twitching spasms may come and go. Gradually the spasms become worse and the spasm may become permanent. The left side is more often affected than the right. The twitches may spread to involve other muscles on the same side of the face. The mouth and jaw are often involved. As time goes on, the corner of the mouth can become pulled up by permanent spasm. Some people also report distorted hearing, hearing loss or may hear a clicking sound on the side that is affected when the spasm comes.

Some people may have quite a mild condition that causes inconvenience and embarrassment. Others find the spasms may affect their vision and their ability to drive. As the other eye is not affected, they are still able to see.

For some people the spasms may become worse when they are tired and stressed. They may also improve when they lie down.

Hemifacial spasm diagnosis

If you are worried about twitching on one side of your face, you should see your GP. They will ask questions about what has happened and how it is affecting you. They may examine you. If they think it might be hemifacial spasm, they will refer you to a consultant who specialises in nerves (a neurologist). Some neurologists specialise in movement disorders such as hemifacial spasm.

A scan of the brain is usually requested by the neurologist to look for a structure or abnormality causing pressure on the facial nerve. This scan may be a magnetic resonance imaging (MRI) scan or an angiography which is a type of X-ray used to check the blood vessels.

Hemifacial spasm treatment

Although there is no guaranteed cure currently, various treatments are available.

Injections

This is the first therapy offered to most people with hemifacial spasm. Botulinum toxin is produced by the bacterium *Clostridium botulinum*. It is usually associated with causing food poisoning called botulism. However, when given in controlled doses, it is safely used to relax excessive muscle contraction. It is injected into the facial muscles and blocks the signal from the nerve. This helps to stop the spasms. Botulinum toxin is better known as Botox®, and it is used more often in cosmetic surgery.

The injection starts to work within a few days and its effect normally lasts for two to three months. At least 7-8 people out of 10 with hemifacial spasm are helped by botulinum injections. However, repeated injections are needed every 3 to 4 months as the effect wears off.

There can be side-effects of the injection such as drooping of the eyelid and double vision. However, these side-effects usually wear off after one or two weeks.

Medicines

These can occasionally be helpful when the spasms are mild or infrequent. Anti-epileptic medicines such as carbamazepine and topiramate can be helpful in some people with hemifacial spasm. These medicines work by quieting nerve impulses. The response to these medicines can vary and it may take time to get the right dose. They will need to be taken on a long-term basis.

Surgery
Several surgical procedures can be performed. Microvascular decompression is one type. It involves moving the blood vessel that may be pressing on the facial nerve Alternatively, a small piece of sponge can be placed between the blood vessel and nerve to separate them. This often cures the condition but may be unsuitable for some patients. It is successful in 9 out of 10 people with hemifacial spasm.

Some serious side-effects may rarely occur as a result of surgery, such as hearing loss or permanent paralysis of the face. For this reason, surgery is usually reserved for cases where the spasms are severe and disabling. Surgery is also used when other treatments have failed to work or if you are young and don't want long-term repeated injections.

What else may help?

Learning relaxation techniques may benefit some people. Educating yourself about your condition and staying positive can also help. Other complementary therapies such as homeopathy or acupuncture do not seem to help this condition.

What is the outlook (prognosis)?

Hemifacial spasm is usually a long-term condition. It is not dangerous or fatal but may affect your quality of life. It very rarely improves without treatment.

Further reading

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