Stroke
Stroke: Early intervention and long-term recovery
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Stroke

Stroke is a devastating disorder which affects about 50,000 Australians each year[1] and is the leading cause of disability. Within one year, 40% of those who suffer a stroke will die and 50% of the survivors will need assistance from carers because of their disability[1]. Approximately 420,000 Australians are living with stroke, with one in five of these of working age (less than 60) when they have their stroke[2]. Despite these sobering statistics, there is some good news – in recent years there have been advances in the very early treatment of stroke, we have a better understanding of how to prevent stroke and we know that recovery following stroke does not have to end when you leave hospital.

What is a stroke?

A stroke is like a heart attack in the brain, with the blood supply to the brain's nerve cells (*neurons*) being interrupted by either a blockage (an *ischaemic* stroke) or a bleed within the brain (*haemorrhage*). The blockage type is more common, but the bleed can be very severe in the initial stages and many people do not survive. The reason for the blockage is usually hardening of the arteries, called *atherosclerosis*, and this is the same condition that leads to a heart attack. The important thing with a stroke is that the nerve cells cannot survive long without oxygen and will die within hours if the blockage is not removed, and when brain cells die they cannot regrow - critical functions of the brain may be lost forever. Strokes in different areas of the brain can have very different effects. The most commonly affected artery within the brain results in difficulty with walking, often talking, and particularly hand movement. Often this type of stroke leads to weakness down one side of the body (*hemiplegia*) but strokes affecting other parts of the brain can lead to problems with balance and coordination, vision, swallowing, eating and often thinking and memory skills. Strokes affecting the right side of the brain can leave people with severe weakness but they may not even realise that they have had a stroke, which makes it very difficult for their family members to explain to them that they cannot look after themselves and go home.

What treatment is there?

In recent years there has been a huge advancement in the treatment of ischaemic stroke, the blockage, but there is a catch. People who appear to be having a stroke need to seek medical treatment as soon as possible. Common signs are weakness of the arm and leg on the same side, difficulty speaking or swallowing, dizziness or double vision. There has been a media campaign in recent years to alert people of some of the common signs of stroke and the need to act **FAST**[3]

F Check their **F**ace, has their mouth dropped?

A Can they lift both **A**rms?

S Is their **S**peech slurred? Do they understand you?

T **T**ime is critical. If you see any of these signs call 000 straight away.

New medicine is available to dissolve the clot and dramatically improve the recovery following stroke, but it is more effective the faster people can get to hospital. Someone with a suspected stroke needs to get an ambulance to get to hospital, then a brain scan needs to be arranged quickly to confirm that the stroke was a blockage and then the medicine is very effective at dissolving the clot. The problem is that many people do not recognise the signs of stroke and do not get to hospital in time, so in 2011 only 5% of Australians actual received the clot-busting treatment[4].

Rehabilitation

For the majority of people who experience stroke, they will need an extended period of rehabilitation in hospital initially, and then at home and in the community. The good news here is that we are learning more about how to ensure a good recovery, and have a number of treatments with evidence that they actually work. What we have learned from research studies over the years is that intense practice is essential for a good recovery – in the early stages it can seem to happen naturally, but after those initial months it takes regular practice and exercise to have a good recovery. Fortunately, we know that this recovery does not have to end – full recovery may not always occur, but with constant practice of the correct exercises prescribed by a physiotherapist people with stroke can see small improvements over many years. This is due to a phenomenon called neuroplasticity, where given the correct conditions the brain can actually change itself to recover from the damage. Neurological Physiotherapists and Neuroscientists are working hard to develop new techniques and approaches to enhance this neuroplasticity even further.

Preventing stroke

The unfortunate reality for people who have suffered one stroke is that they are at a much greater risk of having another. Even those who have a mini-stroke or a TIA (*transient ischaemic attack*) and seem to have a complete recovery are much more likely to have another stroke or even die within the years following this episode[5]. As a result, both medical specialists (*Neurologists*) and GPs work very hard to reduce the risk that someone will have another stroke. This involves careful control of high blood pressure (*hypertension*), the number one risk factor for stroke, as well as investigation of other problems with heart rhythm or blockages of the arteries of the neck that might have caused the stroke or TIA. Recent research though has shown that while taking prescribed medication is vitally important, making some lifestyle changes can significantly reduce your risk of stroke. For example, a combination of five healthy lifestyle choices can reduce your risk of stroke by 80%: not smoking, exercising regularly, follow a healthy diet with lots of fruit and vegetables, moderate consumption of alcohol and maintaining a healthy body weight. This is important for all adults to prevent having a stroke, but also for those who have had a stroke or mini-stroke it is essential to follow medical advice to beat stroke and live a long and healthy life.

References

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