Stroke – symptoms, diagnosis & treatment

What is a Stroke?

A stroke, or cerebrovascular accident (CVA), is when there is an interruption in the blood supply to part of the brain. The majority of strokes are ischaemic (is-KEE-mick), meaning they are caused by a blood clot creating an obstruction within a blood vessel. The other type of stroke is haemorrhagic – when a blood vessel in the brain bursts and blood spills out instead of traveling on to where it is meant to be. Out of the two types, the latter tend to be more severe.

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What are stroke symptoms?

These can vary widely depending on which part of the brain is affected. However, an easy way to remember the more common symptoms is by using the NHS's stroke acronym, FAST[2]:

- Face. Does half of the face look droopy or asymmetrical compared to the other half?
- Arms. Can the person raise both arms above their head? (With a stroke, it can be hard to control one side of the body.)
- Speech. Is their speech suddenly quite slurred or not making sense? Do they seem to struggle to understand you?
- Time. Ring 999 or take the person to A&E immediately. Don't delay this for any reason – strokes are potentially life-threatening medical emergencies and the sooner the person gets to A&E the better.

Stroke vs TIA (*transient ischaemic attack)*

A TIA, or *transient ischaemic attack*, is when the symptoms of a stroke last

less than 24 hours. It is also known in lay terms as a 'mini-stroke'. Despite the rather mild sounding name, TIAs should also be treated as a potential medical emergency. This is because they can sometimes be closely followed by a 'full stroke'.
Also, one should never assume that stroke symptoms will be due to a TIA and wait to see if they go on their own. Any delays in getting treatment may end up causing long-term, and even life-threatening, damage. Even if the symptoms have already resolved, anyone who has had stroke symptoms must still be seen urgently[3].

How is a stroke diagnosed?

When a stroke is suspected, a brain scan is done in A&E. Usually this is a CT scan. A CT Scanner looks a bit like an enlarged polo mint or doughnut – the patient lies on a bed that then moves into the centre 'hole' and x-ray type radiation is used to create a 3D image of the brain. This image can usually show both where the damage has happened and also whether the stroke was from a clot or a bleed.

Stroke treatment

If the brain scan shows that the stroke is caused by a clot, and the person is seen quickly enough, special clot-busting drugs can be given. The aim is to quickly break down the clot and restore that vital blood flow to the part of the brain that has been starved of oxygen[4].
If the clot is in a large blood vessel, a procedure called a 'thrombectomy' (*thrombus* meaning clot and *ectomy* meaning removal) may be performed. This is where a device is inserted into an artery further away, such as in the groin, and carefully threaded up until it reaches the artery with the blockage, which is then suctioned out[5].
These are both examples of immediate treatment after a stroke has happened. There are also multiple different treatments to try to prevent a stroke happening in the first place (*primary prevention*) or to reduce the risk of it happening for a second time (*secondary prevention*). These treatment options will vary based on each individual, but may comprise of lifestyle changes, medication and surgical interventions. They will be covered more in my next blog, *Top Causes of Stroke*.

References

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