

World stroke Day raising awareness about stroke

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Today is the World Stroke Day. We observe this on October 29 to raise awareness about the serious nature and high rates of stroke. We want people to be aware about the prevention and treatment of this condition and ensure better care and support for survivors. Many of us have heard of stroke or we know someone who has had this disease. We always worry about it because we do not fully understand it and what causes it. Today, the World Stroke Day, I have compiled this article which will explain in simple language about stroke.

Statistics in Zimbabwe and United Kingdom

The disease burden from noncommunicable diseases (NCDs) in Zimbabwe is rapidly increasing. All data nationally generated between 1990 and 1997 were analysed in a study. Results were that, from 1990 to 1997, prevalence rates (expressed per 100,000 people) of hypertension increased from 1000 to 4000, rates of diabetes increased from 150 to 550, and rates of Stroke increased from 5 to 15.

In the United Kingdom, 120 000 people have their first stroke every year. 30 000 have a recurrent stroke. Stroke is the largest cause of disability and 3rd most common cause of death (after heart disease and cancer). Stroke occurs mostly in people above 65 years but we are seeing young people getting stroke

30% of people who survive a stroke are fully independent within 3 weeks. This rises to about 50 % within 6 months. 1 million are living with stroke in United Kingdom. Half of these depend on others for help with everyday activities.

Blood supply to the brain

All our organs including the brain need blood supply. Blood carries glucose and oxygen which is needed by these organs to function. Lack of oxygen and glucose can damage the cells in these organs. The heart and the brain need constant supply of blood. The brain is supplied by 4 main blood arteries. These are on the front, the right and left carotid arteries and at the back we have the right and left vertebral arteries. These arteries will branch into smaller blood vessels which supply the rest of the brain cells.

What is stroke?

Stroke is a non-communicable disease (NCD). NCD is a medical condition or disease that is not caused by infectious agents (non-infectious or non-transmissible).

Stroke means blood supply to the brain is suddenly cut off. As mentioned earlier the brain needs constant supply of oxygen from blood. Soon after the blood supply is cut off the brain cells become damaged or die. The effect of the damage will depend on the blood vessel blocked. If it is a large vessel then a large area of the brain will be affected. If it is small blood vessel then a smaller area is affected.

What are the types of stroke ?

We have two main types , the ischaemic and the haemorrhagic stroke.

Let us look at Ischaemic stroke

This type of stroke is caused by a blood clot (ischaemic means a reduced blood and oxygen supply to any part of the body) 70% of cases are ischaemic stroke . In ischaemic stroke blood vessel will have developed a patch of fatty material called atheroma. When this becomes thicker it does trigger blood to clot. When blood clot in a blood vessel in brain it results in stroke .

Sometimes a clot forms in another part of the body and then travels through bloodstream - thrombus . This is what happens in Irregular heart beating called atrial fibrillation (AF). AF can cause a clot in the heart chambers due to abnormal turbulent blood flow. The clot is then carried in the blood stream until it gets stuck in an artery in the brain .

Let us look at the Haemorrhagic stroke

A damaged or a weakened artery may burst or bleed especially when the blood pressure is high. The bleed can happen inside the brain and is called Intracerebral haemorrhage- (a blood vessel inside brain bursts spilling blood into the nearby brain tissue.) The affected brain cells then lose their oxygen supply and become damaged or die . This happens in 10% of cases .

Another haemorrhage is called Subarachnoid haemorrhage- blood vessels burst in the subarachnoid space. This is the narrow space between the brain and skull. This space is normally filled with a fluid called cerebrospinal fluid . This type of stroke happens in 5 % of cases.

In some very rare cases the cause of stroke is not known.

Mini stroke (Transient ischaemic attack TIA) is

This is similar to stroke but the symptoms only last less than 24 hrs. It's due to temporary lack of blood to a part of the brain. This is usually due to a very tiny clot blocking a blood vessel resulting in the brain being starved of oxygen . The brain soon recovers because the clot either breaks up quickly or nearby bloods are able to compensate and supply that part of the brain that is starved of oxygen . TIA you must see your doctor immediately as you are at an increased risk of getting a stroke.

What are the symptoms of stroke ?

Functions of the body are controlled by different parts of the brain so symptoms will depend on the part of the brain damaged and also on the size of the damaged area . We need to remember that

these symptoms of stroke develop suddenly.

Stroke and TIA are medical emergencies. A checklist of symptoms was devised and publicised so that members of the public are aware of it . This is also one of the reasons why I have compiled this article. You have to think of the word FAST. F- A-S-T the first three letters stand for symptoms to look for and T stands for Time meaning that once you see at least one symptom you should call for an ambulance.

F stands for facial weakness . Can the person smile ? Has their mouth or eye drooped ?

A stands for Arm weakness . Can the person raise both arms ?

S- speech disturbances - can the person speak clearly ? Can they understand what you are saying ?

T - Time to call 999/112/911 or your local number for emergency ambulance

Please do not delay . Act fast by calling an ambulance if you notice any of the above symptoms

Other symptoms include;

Headache , dizziness , unsteadiness, leg weakness , confusion, problems with swallowing , balance problems , visual problems and in severe cases, patient can pass out (loss of consciousness).

How do we diagnose a stroke?

We usually diagnose stroke from the typical symptoms and signs which develop suddenly. After suspecting stroke a person is rushed to the hospital and CT or MRI scan to find out the type of stroke .

Blood tests are carried out to check the blood sugar and cholesterol as high levels can increase the risk of further stroke.

A chest X-ray and electrocardiograph (ECG) are done to rule out atrial fibrillation. A scan of carotid blood vessels is also done to check for atheroma.

What is the treatment of stroke?

A quick scan is done to determine type of stroke - ischaemic or haemorrhagic . This is very important as the initial treatment of the two is very different.

If it is ischaemic stroke and it is less than 4 1/2 hours since symptoms started , you may be given medicine to dissolve the clot (medicine used is called alteplase) this process we call it thrombolysis (breaking the thrombus) thrombus is a clot .

Platelets are particles in blood which help blood to clot. Person with stroke must be put on anti platelets to reduce the risk of clot . Aspirin and clopidogrel are tablets used for that .

If the person is unable to swallow may need to be fed via a tube.

If blood pressure or blood sugar and blood cholesterol are raised then treatment will be started to control these

If Atrial fibrillation is found then blood thinning medication can be started- old treatment is warfarin . Nowadays we have new oral anticoagulant drugs such as rivaroxaban or apixaban etc

If scan of the carotid arteries showed severe atheroma then one will be offered surgery to strip out the atheroma.

If you have haemorrhagic stroke and you are taking blood thinning medication , you may be asked to stop taking them and given medication to reverse the effects of some of it like warfarin.

Rehabilitation of stroke patients involves a huge team of professionals. Some of them are Physiotherapists, Occupational therapists, Speech therapist, Dieticians, Psychologists, Nurses and Doctors .

What are the causes of stroke ?

Let us look at the causes of Ischaemic strokes

These are the most common type of stroke and occur when a blood clot blocks blood flow to the brain. The blood clots usually form in areas where the arteries have been narrowed or blocked over time by fatty deposits. Arteries also naturally gets narrow as we get older but certain things can speed up the process. The following will speed up the narrowing of blood vessels and increase the risk of us getting stroke .

- smoking
- high blood pressure (hypertension)
- obesity
- high cholesterol levels
- diabetes
- an excessive alcohol intake

Irregular heartbeat called Atrial Fibrillation (AF) can cause ischaemic stroke . AF is caused by heart problems , thyroid problems and excess alcohol intake

Let us look at the causes of Haemorrhagic strokes

As explained in previous articles this type of stroke occur when a blood vessel within the skull bursts and bleeds into space around the brain.

Causes of haemorrhagic strokes

The main cause of haemorrhagic stroke is high blood pressure, which can weaken the arteries in the brain and make them prone to split or rupture. Things that increase the risk of high blood pressure include:

- being overweight or obese
- drinking excessive amounts of alcohol
- smoking
- a lack of exercise
- stress, which may cause a temporary rise in blood pressure

Haemorrhagic strokes can also occur as the result of the rupture of a balloon-like expansion of a blood vessel (brain aneurysm) and badly-formed blood vessels in the brain.

What can we do to prevent stroke?

The best way to help prevent a stroke is to eat a healthy diet , exercise regularly and avoiding drinking too much alcohol.

These lifestyle changes can reduce the risk of problems such as arteries becoming clogged up by fatty substances, high blood pressure and high cholesterol, all of which are important risk factors of strokes.

These lifestyle changes are also important in those that have had stroke in the past in that they reduce the risk of having another stroke in future .

Let's look at diet

An unhealthy diet can increase our chances of having a stroke because it may lead to an increase in our blood pressure and cholesterol levels.

We must eat a low- fat , high fibre diet including plenty of fresh fruit and vegetables and whole grains.

We must cut down on foods that are high in salt and also processed foods .

We must limit the amount of salt we eat daily to 6 grams (this is about one teaspoonful). Too much salt will increase our blood pressure.

Let's look at exercise

Ideally we should aim for at least 150 mins (2hours and 30minutes) of moderate-intensity aerobic activity, such as cycling or fast walking , every week.

Those recovering from stroke must discuss their exercise plan with their rehabilitation team as it is different from the general advise that I am giving you in this article.

So combining a healthy diet with regular exercise will help us to maintain a healthy weight , lower

cholesterol level and keep our blood pressure at a healthy level

Let's look at smoking

Smoking is not good for us at all. It narrows our arteries and makes our blood more likely to clot. If you stop smoking, you can reduce your risk of having stroke . Not only will you benefit as far as stroke is concerned, you will also reduce your risk of developing lung cancer and heart disease.

Let's talk about alcohol

Excessive alcohol consumption can lead to high blood pressure and trigger irregular heartbeat (atrial fibrillation), both of which can increase our risk of having a stroke.

Alcohol has high calories which also cause weight gain . Research has shown that heavy drinking multiplies the risk of getting stroke by more than three times.

Managing underlying conditions

I Make sure that if you have medical conditions such as high blood pressure , high cholesterol, diabetes , mini stroke (TIA) , which are known to increase your risk of stroke, are well controlled . Please share this article with your friends as we raise awareness about stroke. Leave me some comments as I love to hear from you all.

This article was compiled by Dr Brighton Chireka , who is a GP and a blogger based in Kent in the United Kingdom. Feel free to contact him at info@docbeecee.co.uk and you can read more of his work on his blog at [DR CHIREKA'S BLOG](#)

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