# In Sunday Leader 12/6/16 Preventing Brain Haemorrhage

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My colleague,

another surgeon, was not seen to receive his 'honorary Fellowship' at a recent College of Surgeon's Academic sessions... His wife had represented to receive on his behalf. Checking with her, she said, "He had a brain haemorrhage". This is the third case I hear of a colleague having a similar episode and they all seem to belong to my vintage. Is it possible, that the increase incidence is due to people living longer to better living conditions, and health facilities, or neglect one's health due to pressure at work?

Do not wait till you get one. Over 80% of stroke after brain haemorrhage is preventable, and reading this article will help you in that endeavour.

First of all, let's define what brain haemorrhage is, and understand the causes before contemplating on prevention.

A brain haemorrhage is a type of stroke caused by bursting of an artery in the brain, causing local blood collection surrounding the ruptured vessel. This bleeding deprives the neighbouring brain cells of oxygen and the pressure caused by the bleed may kill brain cells. The doctors call it a cerebral haemorrhage, or intracranial haemorrhage. They account for about 13% of the strokes. Another common cause of stroke is when a blood clot is released from a ruptured plaque within arteries feeding the brain, or may be from a piece of broken away plaque that travels and block a vessel in the brain. Recently, a friend of mine went totally blind in one eye due to blockage of a retinal vessel from a clot that had dislodged from a bleeding plaque.

As we grow older the inner lining of our arteries can become thicker and cause scattered bumps (plaques), mostly in the arteries closer to the heart, including the coronary arteries, carotid arteries (neck) and peripheral arteries causing blockage in the arms and legs, common among diabetics. Cholesterol seems to be part of the cause for these plaques now strongly disputed. The researchers attribute 'Inflammation' to be the initial cause of plaque formations.

There are genetic causes like having tiny aneurysms (bulges due to weak spots) in the brain vessels that could rupture at some stage in your life resulting in a stroke.

There are many other factors causing cerebral haemorrhage, and shall discuss as we go on. What happens during a brain haemorrhage?

The blood that is released from a burst artery could irritate the brain tissue and cause swelling in the locality. The pooled blood is sometimes referred to as a haematoma. Such bleeding could occur inside the brain (intra-cerebral), between the brain and the membranes protecting the brain, and also under the skull, outside the outer membrane (extra Dural). The main risk factors that could lead to rupture of brain vessels and bleed includes:

# **Head trauma**

Accidental direct trauma to the scalp. You could hit your scalp whilst squeezing out of a small car, or accidently hit your head against a hard surface or in motor vehicular accidents when injuries could be multiple.

### **High blood pressure**

This seems to be the commonest cause with aging. It is unfortunate that during the early stage of progressive high blood pressure, there are no visible symptoms or signs.

#### Aneurysm

This is a weakening in a blood vessel wall that swells. It can burst and bleed into the brain, leading to a stroke.

#### **Blood vessel abnormalities**

Weaknesses in the blood vessels in and around the brain may be present at birth and diagnosed only if symptoms develop.

# Liver disease

This condition is associated with increased bleeding in general.

#### **Brain tumours:**

Symptoms of brain haemorrhage A sudden severe headache Seizures with no previous history of seizures Weakness in an arm or leg Nausea or vomiting Decreased alertness, lethargy Changes in vision Tingling or numbness Difficulty speaking or understanding speech

#### **Difficulty swallowing**

Difficulty writing or reading Loss of fine motor skills Loss of coordination Loss of balance An abnormal sense of taste Loss of consciousness Bear in mind that many of these symptoms are often caused by conditions other than brain haemorrhages.

If you suspect brain haemorrhage you need to rush the patient in an ambulance within 4 hours of the episode to the closest hospital.

Doctors may run a variety of imaging tests, such as a CT scan, which can reveal internal bleeding or blood accumulation, or an MRI. A neurological examination and eye

examination, which can show swelling of the optic nerve, may also be performed. Blood tests and a lumbar puncture (spinal tap) may also be needed

Minimising risk factors should be known to prevent a recurrence.

Treat hypertension. Studies show that 80% of cerebral haemorrhage patients have a history of high blood pressure. The single most important thing you can do is control yours through diet, exercise, and medication.

# Don't smoke.

Don't use drugs. Cocaine can increase the risk of bleeding in the brain.

Drive carefully, and wear your seat belt. If you ride a motorbike, always wear a helmet. Investigate corrective surgery. If you suffer from abnormalities, such as aneurysms, surgery may help to prevent future bleeding.

Be careful with "coumarin anticoagulants". If you take warfarin, follow up regularly with your doctor to make sure your blood levels are in the correct range.

Brain haemorrhage is a condition to be prevented by minimizing risk factors, as cure may result in a disability.