

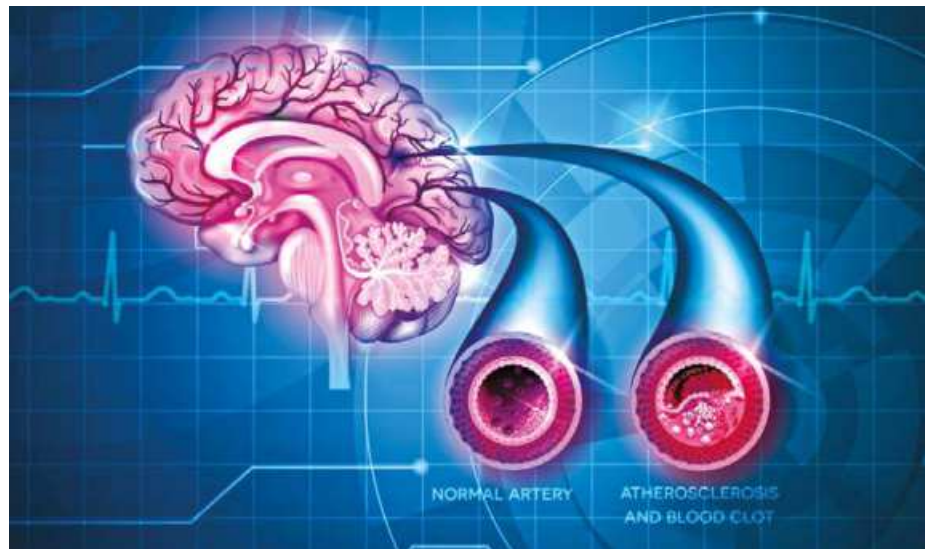
World Stroke Day to encourage healthy living

PROF DR QUAZI DEEN MOHAMMAD

October 29 is celebrated as World Stroke Day every year across the world. The day is marked in the calendar to raise awareness regarding stroke, physical complications caused by stroke, and its preventive measures. Various organisations arrange different events on this day to spread information about the leading causes of stroke and ways to avoid it. Feeding this purpose, this year, the day is celebrated with the slogan – 'Join the MoveMent.'

Stroke is considered to be a disease of the blood vessels of the brain. It is one of the main reasons for fatality in the world right now. The World Health Organisation (WHO) ranks mortality due to stroke in Bangladesh as number 84 in the world. The crude death rate per 1,000 people in Bangladesh is reported at 5.8%; the female and male life expectancies are reported as 64.4 years old and 65.1 years old, respectively. Stroke holds the third leading position as the cause of death and paralysis in Bangladesh. However, this critical medical condition can be avoided if one is careful about their lifestyle habits and dietary consumptions.

There are two types of strokes: ischaemic stroke, and haemorrhagic stroke. It is a common misconception that a stroke can hamper the heart in a body. But the fact is, stroke is a condition where the patient's brain is affected because of blood clots. In the case of an ischaemic stroke, clotted blood is supplied to the brain,



leading to a dysfunctional physical state. A haemorrhagic stroke occurs as the result of a broken blood vessel and bleeding inside the brain. Both types can be extremely critical for the patient's condition with increasing chances of death if not brought to proper medical attention on time.

A case of stroke can be identified from various signs and symptoms on the patients' physical state. The most common and easily traceable sign is the weakness or unresponsiveness of one side of the body.

A stroke on the left side of the brain will affect the right side of the body – including the face, right hand, and right leg, and similarly, an affected right-brain will

affect the left portion of the body. There might be other symptoms like headache, convulsions, nausea or vomiting, blurry eyesight, physical imbalance, fainting, and a speech impediment.

The acronym 'FAST' is referred to as the keyword for primarily diagnosing a stroke, where F means facial droopiness, A means arm weakness, S means speech irregularity, and T means time to call emergency medical attention.

With advancing medical technology and high-quality drugs, stroke patients now get much more improved treatment compared to that of the past decade. Injections and stents are widely used to cure strokes via

medical procedures like thrombolysis and thrombectomy. Extensive surgery, surgical clipping, and a few other methods are also obtained to ensure the blood clots do not hamper the brain any further.

However, it has to be remembered that prevention is better than cure. The global celebration of World Stroke Day and similar other events aim to promote this idea so that the percentage of casualties due to strokes decreases with time.

The first and foremost responsibility to ensure a stroke-free life would be to ensure healthy food consumption. One has to avoid high-fat foods and other items which hamper the cholesterol level. It is advised to give up the habits of smoking and consumption of alcohol. Above all, one has to be physically active and walk, run or skip rope regularly to keep their mind and body active. Those with diabetes are recommended to regularly check and control their blood-sugar level.

World Stroke Day intends to encourage people to follow such healthy and ideal lifestyle trends. World Stroke Organisation has arranged for people to show their 'funky moves' this year, which is basically a humorous approach to promote physical activity. We need more local organisations as well in Bangladesh to step out like this. An overall attempt to create awareness can help us reduce the risks of a stroke on a large scale.

The author is a Professor of Neurology and the Director of the National Institute of Neurosciences (NINS), Dhaka, Bangladesh.

DID YOU KNOW?



Study links keto diet and fasting with major impact on heart failure

STAR HEALTH DESK

A new study has revealed that eating a ketogenic ("keto") diet protects against heart failure and may even be able to reverse the condition in some cases. The research involved comes from St. Louis University, which found that eating a high-fat and low-carb diet has a significant effect in cases of heart failure with decreased mitochondrial pyruvate carrier (MPC) expression.

The heart is dependent on mitochondrial pyruvate to function properly, the study explains, noting that MPC expression decreases in heart failure, which refers to a condition in which the heart cannot pump or fill properly. The newly published study has found that eating a high-fat and low-carb diet like the keto diet may prevent this condition from developing or may reverse it in some cases.

The benefits were limited only to the keto diet, with the study also finding these positive outcomes in cases of higher-fat diets that had a bit more carbohydrates than allowed on the keto diet, limiting the body from going deeply into ketosis. In that case, the researchers found mice that lacked cardiac MPC expression experience 'significantly improved' heart failure symptoms.

The study found that failing hearts returned to 'essentially' their normal size after three weeks on the keto diet. In addition to the diet change, the study also found that a 24-hour fast had a 'significant' positive impact on the heart in cases of heart failure, noting other benefits that come with prolonged fasting, as well, including a drop in blood glucose levels.

HEALTH bulletin



Green tea and coffee consumption linked to lower mortality risk in diabetes

Adults with type 2 diabetes who drink green tea and coffee — especially in substantial amounts — may have reduced risk for all-cause death, according to a study in BMJ Open Diabetes Research and Care.

Nearly 5,000 adults in Japan with diabetes completed a dietary questionnaire and were followed for roughly 5 years. During that time, 309 participants died.

After multivariable adjustment, the risk for all-cause death decreased as consumption of green tea and coffee — both individually and together — increased. Participants who drank 4 or more cups of green tea or 2 or more cups of coffee daily had about a 40% reduced risk for death compared with those who did not drink the beverage. Participants who drank 4 or more cups of green tea plus 2 or more cups of coffee daily had a 63% reduced risk.

The authors note that the findings may not apply outside Japan in part because the composition of green tea may differ in other countries.

Commonly ignored warning signs of colorectal cancer

KAZI MD SHAIMUL REZA

The world has been left distraught by the premature demise of 'King T'Challa' on August 28, 2020. After a four-year battle with colorectal cancer, Chadwick Boseman, the actor who played this iconic character in the Marvel Cinematic Universe breathed his last at the age of 43, leaving behind a throng of devastated admirers.

Media outlets are using this tragic occasion to stir up conversations and impart awareness regarding colorectal cancer, which according to the World Health Organisation (WHO), is the second leading cause of death due to cancer globally.

This cancer, as the name implies, affects the colon or the rectum, which are parts of the large intestine (bowel). While it mostly affects those who are above 50, recently a rise in the younger population has been noticed due to reasons unknown. Notable risk factors include low-fibre, high-fat diets, lack of physical activity, alcohol or tobacco consumption, obesity etc. A positive family history of colorectal cancer increases the risk to many folds.

It is imperative to recognise the following warning signs early and consult a doctor for evaluation:

- Passage of blood with stool is often the earliest and commonest manifestation. The bleeding is usually painless and bright red in colour. Many confuse it for piles/haemorrhoids, while it might apply to the younger age group, elderly

people and those with risk factors or other symptoms should exclude cancer to be on the safe side.

- Some patients experience the urgent need to defaecate multiple times a day but are unable to do so — they frequent the washroom to pass motions but end up passing only flatus, blood or blood-stained slimy secretions (mucus).

- Many observe a change in their usual bowel habits. Most feel the need to use the washroom more frequently and pass loose stools. Some have to wake up early to defaecate and pass blood or mucus-stained stools.

- Some experience features of anaemia (pallor, weakness, dizziness, rapid heartbeat etc.), a new lump in the abdomen or abdominal cramps/discomfort.

- Unintentional weight loss may also accompany the above symptoms.

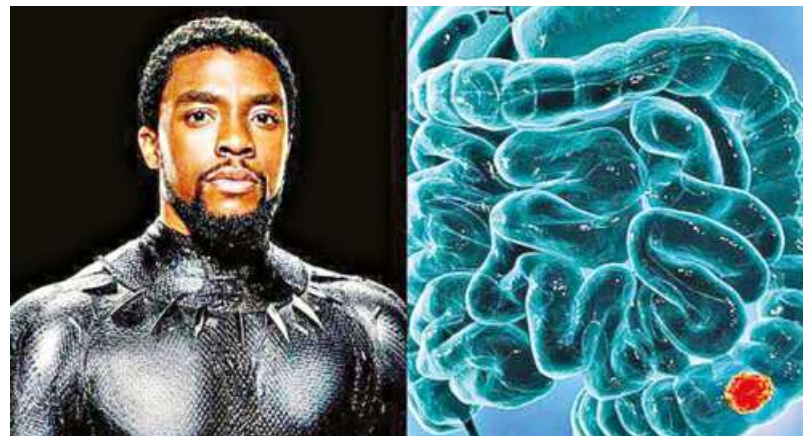
The American Cancer Society recommends routine screening for colorectal cancer from the age of 45. Those with a positive family history should start getting screened at least 10 years before the age at which his/her family member was diagnosed.

Screening is commonly done by colonoscopy, which involves the insertion of a tube with a video camera through the anus to visualise the large intestine.

Alongside diagnosing cancer early, which makes a colossal difference, this painless and safe procedure can also detect polyps which could turn into cancers if left untreated.

With early detection, most people live at least another 5 years after diagnosis. If the cancer does not return at that time, there is a very low chance of recurrence, especially if a patient had early-stage disease.

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Saving newborn lives is not much costly!

Dexamethasone, a low-cost steroid, in early preterm labour saves babies lives in low-resource settings, new study finds.

STAR HEALTH REPORT

The results of a new clinical trial, published on October 23, 2020 in the New England Journal of Medicine, show that dexamethasone — a glucocorticoid (a type of steroid) can improve survival of premature babies when given to pregnant women at risk of early preterm birth in low-resource settings.

The study was conducted in women who are in weeks 26-34 of their pregnancy. An earlier study demonstrated a higher risk of mortality if steroid is given in term labour. Thus, healthcare providers must have access to ultrasound to accurately date the pregnancies.

Women are most likely to benefit from the drug if receive for at least 24 hours and ideally 48 hours before giving birth to give enough time to complete steroid injections for maximal effect. Thus, healthcare providers must also have the means to select the correct women. In addition, babies must receive sufficiently good-quality care when they are born.

The impact is significant: for every 25 pregnant women treated with dexamethasone,



one premature baby's life was saved. When administered to mothers at risk of preterm birth, dexamethasone crosses the placenta and accelerates lung development, making it less likely for preterm babies to have respiratory problems at birth.

Globally, prematurity is the leading cause of death in children under the age of 5. Every year, an estimated 15 million babies are born too early, and 1 million die due to complications resulting from their early birth. In low-income settings, half of the babies born at or below 32 weeks die due to a lack of feasible, cost-effective care.

"Steroid, a low cost, easily accessible intervention to pregnant mother at risk of preterm birth, should be offered to an acceptable range of population to save lives of millions of premature birth and reduction of morbidities; and also economic burden related to their total care," says Professor Saleha Begum Chowdhury, Secretary General of the Obstetrical and Gynaecological Society of Bangladesh (OGSB) who served as the Co-PI of the Bangladesh site of this multi-country study.

"Administration of cost effective, easily available corticosteroid to

the mothers would thus prevent morbidity and mortality of the premature babies which in turn facilitate decreasing under-5 mortality. Important consideration would be the availability of the steroid and capacity building at the community level to get maximum benefit during window period," says Professor Dr Mohammad Shahidullah, Chairman and Professor of Neonatology, Bangabandhu Sheikh Mujib Medical University and Chairman, National Technical Working Committee on Newborn Health, who served as the Co-PI of the Bangladesh site of this multi-country study.

"Steroids are key to survival but only when combined with accurate pregnancy dating and minimum standard of care — a key issue that must be considered during scaling up of this life saving intervention," says Dr Abdullah Baqui, Director of the International Center for Maternal and Newborn Health and a professor of Internal Health at Johns Hopkins Bloomberg School of Public Health, who served as the Co-PI of Bangladesh site of this multi-country study.

Conducted from December 2017–November 2019, the randomised trial recruited 2,852 women and their 3,070 babies from 29 secondary and tertiary level hospitals in Bangladesh, India, Kenya, Nigeria, and Pakistan. In addition to finding a significantly lower risk of neonatal death and stillbirth, the study also found there was no increase in possible maternal bacterial infections when treating pregnant women with dexamethasone in low-resource settings.

In Bangladesh, the study was conducted by Projahnmo Research Foundation in six hospitals in Dhaka and Sylhet under the guidance of Co-PIs.

Is the COVID-19 pandemic affecting dengue virus case numbers?

STAR HEALTH DESK

The ongoing COVID-19 pandemic has resulted in dramatic changes to human mobility, which has the potential to change the transmission dynamics of other infectious diseases. Now, researchers reporting in PLOS Neglected Tropical Diseases have found that social distancing has led to a significant increase in dengue infections in Thailand but no change in dengue in Singapore or Malaysia.

The dengue virus is transmitted by Aedes mosquitoes and can cause severe fever, headache, muscle and joint pain, fatigue and nausea and vomiting. An estimated 105 million dengue infections occur every year, with the majority of cases concentrated in Southeast Asia and the Western Pacific region. In this region, COVID-19 has led to workplace closings, bans on mass gatherings and, at times, complete shutdowns. This provided a natural experiment to estimate the effects of reduced human mobility and workplace exposure on dengue transmission.

In Thailand, the researchers found that social distancing is expected to lead to 4.32 additional cases per month per 100,000 individuals. This rise in cases, largely attributable to increased exposure in residences compared to workplaces, equates to 2,008 additional cases of dengue nationwide. However, no significant impact on dengue transmission was found in Singapore or Malaysia.

"Across country disparities in social distancing policy effects on reported dengue cases are reasoned to be driven by differences in workplace-residence structure, with an increase in transmission risk of arboviruses from social distancing primarily through heightened exposure to vectors in elevated time spent at residences," the researchers say. "[This demonstrates] the need to understand the effects of location on dengue transmission risk under novel population mixing conditions such as those under social distancing policies."

