

Parkinson's Disease

Deep brain stimulation: A chance to thrive

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Human brain is a marvel. We still have little information about it, yet depend so much on it. Our brains are astonishingly perfect. Even a small error there impacts us grossly. Neurological disorders, or problems in the brain are therefore of paramount importance, as they target the most vital human organ. There are different kinds of neurological disorders like strokes, migraines, brain tumours etc.

Parkinson's disease became amongst the most talked of diseases when the greatest sports person of last century, Mohammad Ali, fell victim to it. Even before that, this special kind of neurological disorder have wreaked havoc on the lives of thousands. It causes its victims to gradually lose control of their movements. More than 10 million people worldwide are living with Parkinson's disease, which makes it the second most prevalent neural disease, after Alzheimer's disease. In Bangladesh, every year, approximately 1,600 patients die from Parkinson's disease, with many more suffering from it.

There is no cure for Parkinson's disease. Treatment of Parkinson's disease is therefore, mainly concerned with controlling the symptoms, which is initially achieved via medication. However, the most prevalent treatment, levodopa therapy, causes the patient to suffer from long term complications.



The next step is surgery. There are two options with regards to surgery. The first one is lesion therapy. With recent advances in imaging technology and electrophysiological techniques, we can accurately identify and destroy target structures deep in the brain. The most advanced option now is Deep Brain Stimulation (DBS), where electrodes are placed deep inside the brain and used to stimulate the brain with an aim of stabilising its output.

In Bangladesh, DBS is still a relatively unexplored path. The complicated procedure means that sufficient skill training is required before a surgeon can attempt this procedure. This has caused a gap in the demand and supply dynamic, resulting in patients from

Bangladesh going to Singapore or India to perform this procedure.

Fortunately, times are changing, and some of the most renowned people in the field of DBS are going to be in Bangladesh in September, to attend IBRO-APRC (International Brain Research Organization - Association of Parkinson's Research Centers) Bangladesh Associate School of Neuroscience: Translational Neuroscience and Research, to be organised at United International University and National Institute of Neuroscience and Hospital from. The initiative is taken by Advanced Intelligence Multidisciplinary Lab (AIMS Lab) of IUI and participants have been chosen from the Asia Pacific region through a highly competitive selection process. A total of 14 lectures, 2 live demonstrations, 3 discussions, and 1 mini

conference is going to be organised. Brain researchers will intermingle with surgeons and academicians in order to form an interdisciplinary expert body to jump start the Deep Brain Stimulation in Bangladesh.

As a part of the workshop, world renowned neurosurgeon Prof Tiju Aziz from Oxford University, who is amongst the top neurosurgeon for Lesion and Deep Brain Stimulation, with more than 25 years of experience will interact with neurologists and neurosurgeons of Bangladesh to explain Lesion and DBS. It is worth mentioning that Prof. Aziz has done significant contribution in the advancement of DBS intervention around the world.

Our health sector has already adopted many pioneering techniques, and hopefully the transfer of knowledge from such luminaries will motivate the highly talented neurosurgeons and neurologists in Bangladesh to embrace and improve Deep Brain Stimulation techniques.

With life expectancy increasing, the number of Parkinson's disease patients is also increasing steadily. With successful adaptation of this procedure to bring cutting edge medical services and the patients would be assured of another defining moment to live better life.

Dr Mamun is Director, AIMS Lab and Associate Professor and Mr Jameel is Assistant Professor and Head of CSE, United International University (UIU).

BLOOD CANCER

A network of hope and strength: Living with CML

The entire Chronic Myeloid Leukemia community comes together every September 22 to raise awareness on this rare blood disease that represents 15-20% of all leukemias in adults and the needs of patients around the world. Chronic myeloid leukemia (CML) is a stem cell proliferative disease of the hematopoietic system (HSC).

CML patients have very different access to effective and life saving treatment worldwide but the whole CML community call to have not just treatment but also a cure through the 2017 World CML Day motto: "Today, Together. Today, together we are treated. Tomorrow, we need cure!"

Prof-Dr Syed Akram Hussain, Hematologist of Square Hospitals Limited (SHL) said that we need to place emphasis on raising awareness about one life changing reality – living with chronic myeloid leukemia (CML) and combat stigma by raising the voices of those facing this cancer.

Dr. Ebna Habibul Afd. Shohrab Rahman, President of Bangladesh CML Support Group (who has been living with CML for 15 years) said that our challenges are manifold, such as access to high quality therapies and diagnostics, treatment according to expert recommendations, adherence to therapy, effective side effect management, and development of a cure can only be tackled in partnership between patients, healthcare providers and researchers. He also added that especially here in Bangladesh, our key concerns are that access to treatment for the poorest patients and CML maintenance after treatment.

The members of Bangladesh CML Support Group meet physicians, nurses, patients and caregivers for marking the world CML day every year in Bangladesh.

HEALTH bulletin

A guide to eye cancers



1 in 12 deaths are preventable with 30 mins physical activity

Completing 30 minutes of physical activity five days a week (150 mins a week) is associated with a reduced risk of death and cardiovascular disease, according to the largest study of physical activity tracking 130,000 people in 17 countries published in The Lancet.

Being highly active (750 mins a week) is associated with an even greater reduction, and the authors found that this was more achievable for those who built physical activity into their day through active transport, job type, or housework.

The World Health Organisation (WHO) recommend that adults aged 18-64 years old do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, as well as muscle strengthening exercises at least two days a week.

Overall, the more active a person did the lower their risk of mortality and cardiovascular disease – with the study finding no ceiling effect on the association, and no risks associated with extremely high levels of physical activity (more than 2500 minutes per week, or 17 times the physical activity guideline).

STAR HEALTH DESK

When healthy cells in your eye change or mutate and grow too quickly in a disorganised way, they can form a mass of tissue called a tumour. If these problem cells start in your eye, it is called intraocular cancer, or primary eye cancer. If they spread to your eye from another part of your body, it is called secondary eye cancer.

Symptoms
The most common sign of eye cancer is a change in vision of eye. You may not be able to see well, or you might see flashes of light or spots (floaters). You also may notice a new dark spot in one eye or a change in its size or shape. But eye cancer does not always cause symptoms early on, and these things can happen for many other reasons.

Uveal melanoma
This is the most common kind of primary eye cancer. It happens

when cells form a tumour in a part of your eye called the uvea. It has three parts: the colored part of your eye called the iris, the ciliary body (it makes fluid and helps you focus), and the choroid layer that supplies blood to your eye. This layer is where the cells usually start to change and become cancerous.

Retinoblastoma
This is the most common type of eye cancer in children. It is usually found before age 5. It starts while a baby is in the womb, in the very back part of the eye called the retina. As the baby grows, cells called retinoblasts grow out of control and form a tumour. Sometimes it is first noticed in a picture, when one of the pupils looks different from the other.

Eyelid cancer
This type of skin cancer shows up on or inside your eyelid. The most common form — called basal cell carcinoma — happens on your lower lid and is caused by spending too

much time in the sun. People who have fair or pale skin are more likely to have it. Eyelid cancer can usually be treated if it is found early.

Secondary eye cancer
In most cases, cancer does not start in the eye, it spreads there from somewhere else in your body. That is called secondary cancer, and it happens most often with breast cancer in women and lung cancer in men.

Treatment: Surgery
If the tumour is small and not growing fast and is not causing many problems for you, your doctor may just watch it closely. If it gets larger than 10 millimetres around or 3 millimetres tall or starts to spread, s/he may recommend surgery to take out part or all of the eye, depending on how much of it is affected by the tumour.

Treatment: Radiation
After surgery, your doctor may use high beams of energy (usually a type of X-ray) to kill any cancer cells that may still be there. But this can damage healthy cells, too, and that can make your eyes dry, your eyelashes fall out, or cloud your vision.

Treatment: Laser therapy
The most common kind of laser treatment, called transpupillary thermotherapy (TTT), focuses a narrow, intense beam of infrared light on your eye to shrink a small tumour. It is used to treat eye melanoma, because those cells absorb the light energy from the laser. It doesn't work with intraocular lymphoma. Laser therapy usually causes fewer side effects than surgery or radiation.



Denmark passes the baton to Canada to host the next conference

At an event held during the 72nd annual United Nations General Assembly (UNGA), Denmark symbolically passed the baton to Canada to serve as host country for the next Women Deliver Conference, the world's largest conference on gender equality and the health, rights, and wellbeing of girls and women. Women Deliver brings together diverse voices with a particular focus on maternal, sexual, and reproductive health and rights.

"Both Canada and Denmark are some of the world's leaders when it comes to investing in and empowering girls and women," said Kajsa Iversen, President/CEO of Women Deliver.

Women Deliver is seeking suggestions on topics to be covered and speakers to be featured at the conference. People can submit their ideas or learn more about Women Deliver 2019 at www.wcd2019.org.



World Alzheimer's Month

Facts About Alzheimer's Disease

- Alzheimer's disease is the most common form of dementia. Dementia is a brain condition that affects parts of the brain that control thought, memory & language.
- Alzheimer's disease and related dementias can seriously affect a person's ability to carry out daily activities.
- The risk of developing Alzheimer's disease increases with age, but Alzheimer's disease is not a normal part of aging.
- Most people living with Alzheimer's disease are older than 65 years. However, people younger than age 65 can develop Alzheimer's disease but it is not common.
- Scientists do not know what causes Alzheimer's disease. However, like other chronic conditions, it is probably a result of multiple factors.

Controlling high blood pressure, exercising regularly, and quitting smoking may reduce your risk

What kinds of brain exercises should I do?

- That may be vary from person to person. But the main idea seems to be keeping your brain active and challenged. You could start with something as simple as eating with the hand you usually don't use from time to time.
- You can also:
- Learn something new, such as a second language or a musical instrument.
 - Play board games with your kids or grandkids. Or get your friends together for a weekly game of cards. Mix it up by trying new games. The extra bonus of activities like these? Social connections also help your brain.
 - Work on crossword, number, or other kinds of puzzles.
 - Play online memory games or video games.
 - Read, write, or sign up for local adult education classes.
 - Alzheimer's disease

