A team of surgeons at Hamad Medical Corporation’s (HMC) Hamad General Hospital (HGH) recently performed a complex brain surgery on a ten-year-old girl from Bahrain. The completion of the complicated surgery is significant as it marks the first time it has been performed on a pediatric patient using Hamad General Hospital’s hybrid operating room.

HGH Interim Head of the Neurosurgery Department Dr Siraj Belkhair said the hybrid operating room enables real-time navigation and immediate evaluation of a procedure’s success, both of which improve patient care and health outcomes. “Our patient had experienced a brain bleed in November 2017 as a result of a congenital vascular condition in the brain that is usually diagnosed after it causes bleeding or seizure. She was initially treated with endovascular embolization, a procedure that involves putting a catheter through the groin to reach the brain to inject a glue-like material that will occlude abnormal collections of blood vessels that causes bleeding.’

According to him, interventionalists from the Endovascular Department injected glue material to close the arteriovenous malformation in her brain and to prevent further brain bleeding. However, on follow-up angiogram, it was discovered that the arteriovenous malformation had started to open again and it was determined there was a risk of re-bleeding in her brain. “We consulted with her parents and the

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HMC surgeons perform complex brain surgery on first child patient

CONTINUED FROM PAGE 1

decision was made to remove the arteriovenous malformation,” added Dr Belkhair.

The doctor, who is also the Programme Director of HMC’s Neurosurgery Training Programme, said the patient had a condition called cerebral arteriovenous malformation (AVM), which causes an abnormal connection between the arteries and veins in the brain.

He said Hamad General Hospital’s hybrid operating room, which is the first of its kind in Qatar and one of only a few in the region, puts diagnostic imaging and radiology services next door to an operating room, allowing multistage procedures that were previously performed in separate locations and at separate times to be completed in one scheduled appointment time and location.

“Traditionally, patients undergoing this procedure are moved from the operating room to the intensive care unit and then to an MRI or angiography suite to determine whether a procedure was successful. Having ready access to the highest quality imaging equipment during surgery decreases the need for follow-up surgeries and lessens the amount of time the patient is under anesthesia, which shortens the patient’s recovery period and the overall time spent in the hospital,” said Dr Belkhair.

“All of these steps were saved by having the hybrid operating room. We were able to do an angiogram while we were resecting arteriovenous malformation to make sure we had completed the re-sectioning of the arteriovenous malformation. The surgery was done in three hours and the child was discharged home after two days.”

Dr Belkhair said the use of the hybrid operating room for pediatric patients is significant as it means children are spending less time under anesthesia and their exposure to radiation for treatments is minimized, which all translates to safer care and a better experience for patients and their families. He said the success of last week’s milestone surgery was a team effort, with teams from across Hamad General Hospital, including the Neuroradiology Department, all playing an essential role.

Since opening in December 2016, around 19 patients have benefited from Hamad General Hospital’s hybrid operating room facility.

HMGH opens second outpatient psychiatry clinic

HEALTH CHECK TEAM

AMAD Medical Corporation’s (HMC) newest hospital, Hazm Mebaireek General Hospital (HMGH), recently introduced its second outpatient psychiatry clinic. This came as part of a wider strategy to facilitate easier access to specialist mental health services in the country. The new clinic, which began receiving patients last week, will care for those requiring routine outpatient psychiatry assessment and treatment.

Mental Health Services Medical Director and Acting Chairman of Psychiatry Dr Majid al Abdulla said the introduction of a second outpatient clinic is a notable milestone on the journey towards the establishment of a multidisciplinary mental health service at the new community-based hospital. “Our second outpatient clinic will provide psychiatry and mental healthcare to those living and working in the Industrial Area of Doha. Since our first outpatient clinic opened in May, we have cared for patients at around 90 outpatient visits, covering all adult psychiatric conditions, including anxiety disorders, psychosis, and depression. The establishment of a second outpatient clinic will allow us to even better serve our patients,” said Dr Al Abdulla.

Hazm Mebaireek General Hospital Medical Director Dr Hanif Kilani said the establishment of a second outpatient clinic is a response to the growing need for community-based psychiatry and mental healthcare services. He said the demand for mental healthcare services continues to rise and the establishment of a second

Dr Majid Al Abdullah

HMGH’s ongoing expansion of community-based mental health services is in line with the National Mental Health Strategy’s objective to design and build a comprehensive and integrated mental health system. He said this latest expansion is aligned with the National Mental Health Strategy and is a reflection of the efforts to develop partnerships that facilitate easier access to mental healthcare in the community.

Dr Kilani said the establishment of the second outpatient psychiatry clinic and last month’s launch of surgical services at Hazm Mebaireek General Hospital are part of a planned expansion program that will see several other services opening this year at the new hospital. He said plans are afoot to launch a dental service, prosthodontics lab, and outpatient cardiology services. A second Intensive Care Unit and expanded Emergency Department will also open before the end of the year.

Located in Doha Industrial Area, Hazm Mebaireek General Hospital provides care for adult male patients, particularly those living and working in this area. The hospital, which was officially opened in December 2018, offers a range of outpatient, inpatient and emergency care services.
**HEALTH CHECK TEAM**

**DOHA**

A research project presented by an anesthesia team from the Women’s Wellness and Research Center (WWRC) has recently been awarded second place in the prestigious Gertie Marx Research Prize competition. The event was organised by the Society for Obstetric Anesthesia and Perinatology (SOAP) as part of their annual meeting held earlier this year in Phoenix, Arizona, the US.

The WWRC team submitted the research paper based on their work comparing the potency of two different medications, phenylephrine and noradrenaline, which are used to prevent low blood pressure associated with the administration of a spinal anesthetic for women delivering through cesarean section.

“Our study is one of the first to compare the effectiveness of these two drugs when given as an infusion and to find an evidence-based answer to determine the optimal dosing regimen for women delivering through cesarean section,” said Dr Mitko Kocarev, consultant anesthesiologist and principal investigator of the study.

Dr Kocarev explained that a common side effect for mothers undergoing a cesarean delivery is low blood pressure as a result of the spinal anesthetic. Dr Kocarev said that for the past 15 years, phenylephrine has been used to prevent or treat this, underscoring the importance of a study that will support anesthesiologists in using noradrenaline appropriately for this purpose.

The study was undertaken at Hamad Medical Corporation’s (HMC) WWRC and recruited a group of mothers undergoing planned cesarean deliveries as part of a randomized controlled research trial. The findings of the study were presented by Dr. Fatima Khatoon, associate consultant anesthesiologist, one of the study investigators and a former fellow in obstetric anesthesia. It was the first-ever paper from this region presented at the Gertie Marx Research Prize competition.

**WWRC Research Lead for Obstetric Anesthesia Dr Roshan Fernando, who is also a member of the study team, said the concerted efforts of the WWRC research team enabled completion of the research in only eight weeks, a process that would have taken at least 18 months in many similar academic institutions. “I am very proud of the work undertaken by the research team. For this study to be formally recognized at the highest level by the Society of Obstetric Anesthesia and Perinatology, is a wonderful endorsement of the quality of this research and the benefits it can deliver. The study has the potential to positively impact the care delivered to thousands of mothers undergoing cesarean sections here in Qatar each year, as well as millions around the world,” explained Professor Marco Marcus, HMC’s Chairman of Anesthesiology, Intensive Care Unit, and Perioperative Medicine.**

“On behalf of the entire research team, I would like to pay tribute to our colleagues at the WWRC’s Anesthesia Department and also the nursing staff, anesthesia technicians, and obstetric colleagues, without whose assistance the project would not have come to fruition,” said Dr Kocarev.

**Patients continue to benefit from Al Wakra Hospital’s medication therapy management clinic**

**HEALTH CHECK TEAM**

**DOHA**

Patients with health conditions requiring them to take multiple medications are continuing to benefit from medication-related education and consultations at the pharmacist-led Medication Therapy Management Clinic at Hamad Medical Corporation’s (HMC) Al Wakra Hospital.

Opened in 2015, the innovative clinic provides a variety of outpatient services to those who need help managing their medication therapies. As part of the initiative, clinical pharmacists answer patient’s questions related to medication dosages, effectiveness, side effects, drug interactions, and adverse reactions.

“The Medication Therapy Management Clinic aims to provide the safest and most effective individualized medication therapies while also encouraging patients to commit to their medication regimen and other treatments through regular follow-up care. So far, the initiative has yielded positive results – based on the feedback we have received from patients,” said Dr Rasha al Anany.

She noted that the clinic is staffed by registered clinical pharmacists with extensive experience in medication therapy management. She said the pharmacy team works closely with physicians to ensure each patient’s medication plan is achieving targeted therapeutic goals.

Dr Al Anany said patients are referred to the clinic by physicians and they can also walk in, and referrals or appointments are not necessary. She said the clinic aims to provide patients taking multiple medications for chronic conditions such as congestive heart failure, diabetes, end-stage renal disease, depression, and respiratory diseases with individualized education and consultation.

“Patients are also referred to the clinic if they are non-adherent to their medication regime. In these cases, the patient may require individualized education. We also see patients who have been prescribed a medication that they have concerns about, such as concerns over drug interactions or adverse drug reactions. In this case, they may just need a little extra information or clarification. The clinic provides other services upon demand, including medication counseling, post-discharge medication follow-up care, including via telephone, and medication cost consultations,” explained Dr. Al Anany.

Dr Dania Alkhiyami and Dr Sara Hayden, both coordinators at the Medication Therapy Management Clinic, said the clinic is working closely with patients and their doctors to provide additional information about medications and medical issues.

They said the clinic is also providing specialized pharmaceutical care for patients with asthma and chronic obstructive pulmonary disease (COPD), who require extensive education and follow-up care on prescribed medications, especially inhalers. Hundreds of patients have benefited from this service since an agreement was signed between the Medication Therapy Management Clinic and Pulmonary Clinic at Al Wakra Hospital earlier this year.
Al-Ahli Hospital performs successful surgery to replace aortic valve

A -Ahli Hospital performed a surgery to successfully replace an aortic valve of a 49-year-old patient. The patient was suffering from shortness of breath, pain in the left side of his chest resembling stenocardia, with pressure and tightness in chest that decreased gradually when having rest. The patient felt abnormality in the heartbeat pattern (arrhythmias), such as rapid heartbeat (palpitation), tiredness and exhaustion, particularly when experiencing fatigue.

During the patient’s follow-up visits to outpatient clinics of Al-Ahli Heart Care Center, the doctors diagnosed the patient as having stenosis in the aortic valve that separates the left ventricle and aortic artery from which the body arteries emerge.

The aortic stenosis causes reduction in blood flow through the aortic artery. Sometimes, this reduces the blood flow to the body organs, such as the heart and the brain.

Cardiovascular surgery consultant in Al-Ahli Hospital, Dr. Atef Ben Youssef, said the reason behind the aortic valve stenosis is the continuous and advanced deterioration of the valve tissues that usually occurs with aging. Deterioration and exhaustion increase quickly in patients with birth defect. Furthermore, accumulation of calcifications may worsen the aortic stenosis because of aortosclerosis and the limited motion inside the valve. Rheumatic fever also causes aortic stenosis by producing scar tissues on the valve, consequently narrowing it.

Although this type of fever has become rare in the advanced countries, it still exists as a complication of febris rubra and streptococcal pharyngitis. Aortic stenosis takes a long time before appearing in patients of febris rubra. Its symptoms include prostration, dizziness, pressure in the chest, cardiac murmur, shortness of breath when practicing any physical activity, palpitation and fainting.

In many cases, he said, the optimum medical care for patients suffering from severe aortic stenosis requires to replace the aortic valve. This was the case of the patient in Al-Ahli Hospital, which required replacement of the valve. So the valve was replaced successfully and the symptoms disappeared after the surgery.

Dr. Atef clarified that many symptoms may appear to indicate a problem in the aortic valve, such as shortness of breath because of inability of the cardiac muscle, particularly the left ventricle, to pump the blood through the narrowed valve, specifically when performing physical tasks or efforts because the blood cannot flow to the pulmonary circulation and then to the blood vessels in the lung. Shortness of breath does not necessarily mean that the left ventricle is completely damaged. Attention should be paid to get treatment and medication without delay to avoid any damages to the left ventricle and to the cardiac muscle.

Other symptoms of aortic valve stenosis in 30 to 40% of patients include stenocardia which appears when making a physical effort. In some patients, 15% to 25%, stenocardia is accompanied by fainting which is deemed a dangerous symptom and a negative indicator of inability of the cardiac muscle - because of the narrow valve - to fulfill the increasing need for blood. So, there is a deficit between the ability of the heart to pump blood and the need for blood. This causes brain perfusion reduction and slowness of the heartbeat (bradycardia) as a result of atrioventricular node damage. Once fainting occurs, medication must be followed correctly to avoid sudden death.
Tips to help prevent falls in the elderly

**HEALTH CHECK TEAM**

DOIHA

* Elderly people are at great risk of falls. Hamad Medical Corporation’s (HMC) Home Health Care Service recently organised a workshop themed, ‘Prevention is Better than a Cure,’ for elderly patients, their families, and home support workers as part of ongoing efforts to prevent fall-related injuries and reduce the severity of injuries when falls occur.

  Head of Health Education at HMC’s Home Health Care Service, Fatima al Bolari said caring for elderly patients is a substantial part of her team’s workload. She said her teams see the effects of falls on a daily basis – not just in terms of physical harm, but also the knock-on effects, such as anxiety and decreased confidence.

  ‘Falls represent a significant threat to the health and independence of older adults and each year we organize three annual workshops for our patients, their families, and home health-care workers as part of our ongoing efforts to help prevent falls, and to demonstrate the best way to care for someone who has had a fall,’ she said.

  Health Educator, Home Health Care Service Jihan Mohammed, ‘A fall can indicate an underlying health problem and many older people experience recurrent falls, which can lead to serious health complications such as bone fractures. There are many reasons why ageing adults fall, including illness or weakness, inappropriate footwear, foot abnormalities, and misuse of assist devices such as walkers or canes.’

  Mohammed said many risk factors for falls are health-based and related to chronic medical conditions or medications, or loss of hearing and balance, and other conditions that can be part of the normal ageing process. She said it is important to have regular checkups with a physician and she recommended developing a personalized fall prevention plan that targets individual risks and vulnerabilities.

**PRACTICAL TIPS TO HELP PREVENT FALLS**

- Wearing appropriate footwear and hazard proofing the home by removing slip or trip hazards like loose rugs or mats, and repairing or replacing worn areas of carpets.
- Wipe up spills immediately and keep walkways in good repair and clean, and making sure there is adequate lighting, especially at night.
- Use non-slip bath mats and ensure the elderly individual has easy access to a phone and emergency telephone numbers.

Adopting a healthy lifestyle is key to good health

CATHERINE W GICHUKI

DOIHA

*Many* people feel that their busy daily life stops them from being physically active because they do not get time to go to the gym on a daily basis. Others eat junk food because it is easier to get them from a restaurant than preparing a healthy meal at home. However, according to Hamad Medical Corporation (HMC)’s Endocrinology Consultant Dr Shaimaa Arroub, even if one cannot go to the gym, they can certainly increase their physical movements during the day.

Bearing in mind that obesity is a major problem in Qatar and it is correlated with diabetes, people should try to lead a healthy lifestyle.

She said that instead of using a lift, people should use stairs or park their car at a distance so that they can have a chance to walk a distance, especially now when the weather is cool. “If you cannot go to the gym everyday, increase your physical activity by walking more. One could use stairs while at the office instead of using the elevator. This will increase the daily steps.” She said that people should take advantage of the current favourable weather to do outdoor activities. “We should inculcate behaviour that helps us to increase our activity per day.”

Arroub advised that one should exercise at least 150 minutes per week. She said that instilling healthy behaviours involves having a healthy diet. “According to statistics, Qatars have junk food more than 3 times a week, which is an unhealthy behaviour.”

According to her, people should have healthier choices even when they are eating out- one should include salads in meals, avoid sugars, reduce the intake of carbohydrates and reduce intake of junk food.
**HEALTH CHECK TEAM**

**DOHA**

**WITH** the hot and humid weather expected to continue throughout August and September, the Hamad Trauma Center recently warned the public about the dangers of leaving children alone in vehicles.

"With the summer temperatures upon us, we would like to remind the public of the increased risk of leaving children alone in hot cars," said Dr. Rafael Consunji, Director of the Hamad Injury Prevention Programme, the community outreach arm of Hamad Trauma Center.

Throughout the summer season in Qatar, he noted, the temperature inside a parked car can reach as much as 40 degrees celsius higher than the outside temperature. Even on a relatively cool day, the temperature can be over 20 degrees celsius hotter. "Most of this temperature rise can happen within the first five minutes of turning off the engine and air conditioning, putting children left inside the vehicles at great risk of high fever, dehydration, seizure, heat stroke, and even death. Hot days bring dangers for everyone, but the dangers are much higher for children. A child's temperature can rise five times faster than an adult's, especially on hot days, increasing their risk for dehydration and heat stroke."

Dr. Consunji explained that even cars parked in shade can get hot very quickly and the younger the child the greater their sensitivity to heatstroke, and the faster they can become dehydrated.

He also warned against leaving children in parked cars even if the engine is left running and the air conditioning is on. The air conditioning, he explained, cannot always be relied upon and any failure in the cooling system can put children at risk.

"Deaths from heatstroke can happen even when cars are parked in the shade and widing the window down a few centimetres has little effect on rising heat. Additionally, the color of the seats and interior does not affect rising heat and large cars heat up just as fast as small cars. It is not safe to leave a child unattended in a vehicle for any amount of time, even for a minute. If you have to leave your car for any reason, always take your child with you," said Dr Consunji.

Children are sometimes left in hot cars because they are asleep or are forgotten about by busy parents.

"Make a reminder that your child is in the car with you. For example, put your child’s bag or lunch box on the front seat where you can see it or leave an item that you will need on the back seat next to your child. Additionally, never give your child car keys to play with and make sure to keep keys out of reach. This can help to prevent your child from accidentally locking themselves in the car," added Dr Consunji.

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**Huntington’s disease triggered by genetic instability in brain cells: Study**

**BRADLEY J FIKES**
**TRIBUNE NEWS SERVICE**

Huntington’s disease is triggered by genetic instability of a particular DNA sequence in brain cells, according to a new study of the lethal neurodegenerative disorder.

If confirmed, the study could lead to new methods to prevent disease onset. It could also result in more accurate prediction of when healthy carriers begin to show symptoms.

The study appears at a time when hope for effective treatment is soaring. Ionis Pharmaceuticals has developed a drug that reduces production of a mutant protein believed to cause the disease. It is now being tested in Huntington’s patients by Swiss drug giant Roche.

Huntington’s is caused by a mutation in a gene that makes a protein called huntingtin.

Symptoms emerge gradually, including movement disorders, swings in mood and loss of cognitive function. These vary with each person. The disease leads to death.

The age of onset also varies. It’s linked to the mutation’s severity — a repeat of three DNA letters called CAG.

This mutation was assumed to be static, making an altered huntingtin that gradually causes damage. However, the study found evidence that an increase in the length of mutation during the lifetime of the patient determines the time of onset. When a threshold of consecutive CAGs is crossed, the disease begins to manifest.

Moreover, researchers found the age of onset is affected by at least six genes that maintain and repair DNA. These genes provide new targets for therapies.

The study was published last week in the journal Cell. It’s based on information from more than 9,000 people with Huntington’s disease.

The study suggests that if the Ionis drug works, it should be given as early as possible before symptoms manifest, said researcher James Gusella, a study leader at Massachusetts General Hospital.

Gusella said that other diseases are caused by these CAG repeats in other genes. So if the mutant huntingtin gene could be stabilized with a drug, such an approach might provide a universal treatment for all these diseases.

Huntington’s carriers with enough CAG repeats to trigger the disease go through life knowing they will eventually fall ill. But estimates based on repeats are sometimes inaccurate, leading people to develop symptoms either earlier or later than expected.

Improving these estimates would be of great use to doctors and patients alike, said Rocio Gomez-Pastor, a neuroscientist and Huntington’s disease researcher at the University of Minnesota.

“From the physician’s point of view, they will be more equipped when they say to patients whether the onset could take place within the next 10 years, or the next 15 years or five years,” she said. “That certainly makes a big difference to a family.”

University of California, San Diego researcher Don W. Cleveland, whose work led to the Ionis drug, said it could be feasible to develop drugs to stabilize the genome of affected neurons.

“But to be effective, those potential treatments would probably need to be applied prior to disease onset,” Cleveland said. “That is a very high bar for therapy development.”

The study also reinforces the promise of the Ionis/Roche drug now in testing, Cleveland said. The study was performed by the Genetic Modifiers of Huntington’s Disease (Gem-HD) Consortium. Funders include the CHDI Foundation, National Institutes of Health and the UK Medical Research Council.
SMOKING IN CLOSED PUBLIC SPACES IS PUNISHABLE BY LAW

According to Article 17 of Law No. 10 of 2016 on the control of tobacco and its derivatives:

Without prejudice to any more severe penalty stipulated in any other law, a penalty of not less than one thousand (1000) Riyals, not exceeding three thousand (3000) Riyals shall be imposed on anyone who smokes cigarettes or tobacco or its derivatives, or permits smoking in closed public places where smoking is prohibited.

VIOLATION HOTLINE 50302001
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