



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Monday

20190311

Vitamin D

Vitamin D may help control asthma (The Tribune: 20190311)

<https://www.tribuneindia.com/news/health/vitamin-d-may-help-control-asthma/740973.html>

Vitamin D may help control asthma

Importantly, the findings showed that the effects were most pronounced among obese children. IStock

NEW YORK: Besides making bones strong, higher levels of Vitamin D can also help children with asthma to become more resilient to harmful respiratory effects caused by indoor air pollution, say researchers including one of an Indian-origin.

“Asthma is an immune-mediated disease,” said lead author Sonali Bose, Assistant Professor at the Icahn School of Medicine at Mount Sinai.

“From previous scientific studies we knew that vitamin D was a molecule that may influence asthma by impacting antioxidant or immune-related pathways,” she added.

The researchers observed that having low blood vitamin D levels was related to harmful respiratory effects of indoor air pollution from sources such as cigarette smoke, cooking, burning of candles, and incense, among children with asthma.

Conversely, in homes that had the highest indoor air pollution, higher blood vitamin D levels were associated with fewer asthma symptoms in children.

Importantly, the findings showed that the effects were most pronounced among obese children, Bose said.

“This highlights a third factor at play here - the obesity epidemic - and helps bring that risk to light when considering individual susceptibility to asthma.” For the study, published in the Journal of Allergy and Clinical Immunology: In Practice, the researchers tested three factors—air pollution levels in homes, blood vitamin D levels, and asthma symptoms—in 120 schoolchildren with pre-existing asthma. One-third of the children were obese.

“One way to increase blood vitamin D levels is to increase sun exposure, but that isn’t always possible in urban environments, or in people with darker skin pigmentation,” Bose said.

“Another way is through dietary supplements or eating more foods that are high in vitamin D, such as fatty fish, mushrooms, or foods fortified with vitamin D, such as bread, orange juice, or milk.” — IANS

Breast cancer

Key gene behind breast cancer identified (The Tribune: 20190311)

<https://www.tribuneindia.com/news/health/key-gene-behind-breast-cancer-identified/740982.html>

Australian researchers have tracked an elusive cancer-promoting gene that appears to be behind aggressive breast cancers, paving the way for crucial therapeutic drug treatment for the deadly disease.

Researchers from the University of Queensland, together with Albert Einstein College of Medicine in the US, developed a statistical approach "to reveal many previously hard-to-find genes that contribute to cancer", Xinhua news agency reported.

"Even if a group of people all have the same type or even subtype of cancer, the molecular make-up of that cancer is different from person to person because the activity of genes varies between people," said Jess Mar, Associate Professor at the varsity.

In the study, published in the British Journal of Cancer, the team used a method to "zoom in" on genetic information from cancer patients and identify genes with two distinct "bumps" of data—low activity in one group of patients but high activity in another.

Analysing breast cancer data from a major cancer genome patient database, the researchers identified five genes that were "over-active" in a subset of breast cancer patients and followed up on the most promising target, known as CBX2.

"Previous studies have shown that most healthy female tissue has low levels of CBX2 activity, while an aggressive subtype of breast cancer has been shown to have high levels of CBX2 activity," Mar said.

"This suggested a possible link between CBX2 activity and breast cancer, but the nature of that link hadn't been investigated," she said.

"So we switched off the gene in a human breast cancer cell line and this slowed down the growth of those cancer cells, suggesting that CBX2 might promote tumour growth." If further tests confirmed that CBX2 was an "oncogene", it could be a potential therapeutic drug target for aggressive types of breast cancer, Mar said.

"Identifying 'hidden' oncogenes that are unique to smaller groups of cancer patients will open up new therapeutic avenues and move us closer to personalized medicine," she said. IANS

Autoimmune diseases

Autoimmune diseases on rise among women of reproductive age (The Tribune: 20190311)

<https://www.tribuneindia.com/news/health/autoimmune-diseases-on-rise-among-women-of-reproductive-age/740508.html>

Autoimmune diseases occur as a result of the immune system attacking the body's own organs, tissues, and cells. iStock

With a growing number of women of reproductive age being diagnosed with autoimmune diseases such as lupus and APS, experts believe the disorder is adversely affecting fertility in such females and in some cases may even lead to miscarriage, foetal death and premature birth.

According to doctors, there is a rise in the cases of autoimmune diseases among women, including those of reproductive age.

Earlier, there were very few female cases of autoimmune diseases in the OPDs. However, due to improvement in tests, 75 per cent of such cases are now diagnosed among females, they said.

Dr Uma Kumar, head of Rheumatology department at All India Institute of Medical Sciences (AIIMS), Delhi outlined a case study of a 27-year-old woman patient who had to undergo two abortions within a period of one and half years.

Unaware of the exact reason behind the failure in delivery, the woman visited several gynecologists within a short span of time to figure out what was wrong.

Understanding her complications and cases of spontaneous abortions, a doctor at a private hospital in the national capital referred the woman to Rheumatology department of AIIMS Delhi.

The department advised the woman to undergo a few tests during which she was found positive for Antiphospholipid syndrome, also known as antiphospholipid antibody syndrome (APS or APLS), which is a severe form of auto-immune diseases.

Autoimmune diseases occur as a result of the immune system attacking the body's own organs, tissues, and cells.

Some of the more common autoimmune diseases include type 1 diabetes, rheumatoid arthritis, lupus, inflammatory bowel disease and some organ specific ones such as Multiple sclerosis and Myasthenia gravis.

According to doctors, although the cause of many autoimmune diseases remains unknown, a person's genes in combination with infections and other environmental exposures are likely to play a significant role in disease development.

Treatments are available for many autoimmune diseases, but cures have yet to be discovered.

A global estimate shows that nearly 700 million people suffer from some kind of an autoimmune disease, in stages ranging from mild and moderate to severe.

Like other cases of autoimmune diseases, the woman who underwent the treatment at AIIMS also suffered from a slew of problems such as severe pain and blackish discoloration (gangrene) of a toe along with breathlessness because of clot in arteries.

Having received proper treatment for the condition, the woman was able to deliver a baby in 2013.

“Autoimmune disorders are very common among women of reproductive age. APS can present with a variety symptoms resulting from thrombosis in the blood vessels like arteries, veins and capillaries as well as obstetrical complications,” Kumar told PTI.

Kumar said that women with APS can have obstetric complications that include unexplained recurrent early miscarriage, foetal death premature birth or foetal growth retardation and pre-eclampsia.

She said the diagnosis of APS is based on clinical features and positive auto-antibodies like anti-cardiolipin antibodies, anti-beta2-glycoprotein 1 antibodies and lupus anticoagulant.

“One per cent of normal population can have APLA positivity, and only two per cent of those having positive APLA develop the disease,” Kumar said.

Dr Alok Kalyani, Rheumatologist at Max Super specialty at Delhi’s Shalimar Bagh said that the problem of autoimmune diseases is late diagnoses because there is absolute lack of awareness among citizens about it, especially women.

However, Dr Neeraj Jain, a Rheumatologist at Delhi’s Sir Ganga Ram Hospital, said that more cases of auto-immune diseases are being diagnosed in the country and elsewhere these days due to better facilities for diagnosis.

“Things are improving for the patients of auto-immune diseases in today’s era. Unlike before there are better facilities and there is a proper diagnosis for it. If the patients with the disorder, especially women, take medicines properly they lead a better life even they do not get rid of it completely,” Jain said. PTI

Mediterranean diet

Mediterranean diet may boost athletes’ endurance exercise performance (The Tribune: 20190311)

<https://www.tribuneindia.com/news/health/mediterranean-diet-may-boost-athletes-endurance-exercise-performance/740506.html>

Mediterranean diet may boost athletes’ endurance exercise performance

The Mediterranean diet includes whole fruits and vegetables, nuts, olive oil and whole grains.

WASHINGTON: A Mediterranean diet—rich in whole fruits and vegetables, and free of processed meats and dairy—may improve athletes' endurance exercise performance after just four days, a study claims.

The study, published in the *Journal of the American College of Nutrition*, found that participants ran a 5K six per cent faster after eating a Mediterranean diet than after eating a Western diet.

The 5K run is a long-distance road running competition over a distance of 5 kilometer.

Researchers from Saint Louis University (SLU) in the US found no difference between the two diets in performance in anaerobic exercise tests.

The Mediterranean diet includes whole fruits and vegetables, nuts, olive oil and whole grains, and avoids red and processed meats, dairy, trans and saturated fats and refined sugars.

By comparison, the Western diet is characterised by low intake of fruit, vegetables and unrefined or minimally processed oils and high intakes of trans and saturated fats, dairy, refined sugars, refined and highly processed vegetable oils, sodium and processed foods.

The Mediterranean diet is well-established as having numerous health benefits, said Edward Weiss, a professor at SLU.

He and his team hypothesised that the diet's anti-inflammatory and antioxidant effects, more alkaline pH and dietary nitrates might lead to improved exercise performance.

"Many individual nutrients in the Mediterranean diet improve exercise performance immediately or within a few days. Therefore, it makes sense that a whole dietary pattern that includes these nutrients is also quick to improve performance," Weiss said.

"However, these benefits were also quickly lost when switching to the Western diet, highlighting the importance of long-term adherence to the Mediterranean diet," he said.

The study enrolled seven women and four men in a randomised-sequence crossover study. The participants ran five kilometers on a treadmill on two occasions—once after four days on a Mediterranean diet and on another occasion after four days on a Western diet, with a period of nine to 16 days separating the two tests.

Weiss says the study found the 5K run time was six per cent faster after the Mediterranean diet than the Western diet despite similar heart rates and ratings of perceived exertion.

"This study provides evidence that a diet that is known to be good for health is also good for exercise performance," Weiss said.

"Like the general population, athletes and other exercise enthusiasts commonly eat unhealthy diets. Now they have an additional incentive to eat healthy," he said. PTI

Ayurvedic Kidney Drugs (The Asian Age: 20190311)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=12599166>

Ayurvedic kidney drug gets global recognition

RAHUL CHHABRA
NEW DELHI, MARCH 10

Traditional Indian herb Punarnava has been found to be effective in preventing and managing kidney ailments, researchers of at least two recent scientific studies have found, adding to the increasing global recognition that ayurveda is getting.

As the Ayush ministry prepares to observe the World Kidney Day March 14, the scientific studies highlighting ayurveda's benefit in kidney ailments assumes greater significance as there are limited options available in allopathy for treatment in this

area. Senior nephrologist from Sir Ganga Ram Hospital Manish Malik agreed, "Scope of treatment in allopathy is very less, is costly and not fully successful as well. Hence, balanced diet and ayurvedic cost-effective drugs like Neeri KFT based on herbs like Punarnava can help all those kidney patients who are under regular dialysis." Sanchit Sharma, executive director of Aimil Pharmaceuticals which is engaged in manufacturing and marketing of the herbal drug Neeri KFT among others, said that it was after numerous tests that this formulation



Traditional Indian herb Punarnava has been found to be effective in preventing and managing kidney ailments, researchers of at least two recent scientific studies have found

has been developed for kidney patients.

The Global Burden of Disease (GBD) study 2015 has revealed chronic kidney disease (CKD) as the eighth leading cause of death.

According to a case study conducted in Banaras Hindu University which has been published in *World Journal of Pharmacy and Pharmaceu-*

ticals Sciences, a woman kidney patient was given Punarnava based syrup for a month. It was found that the creatinine level and urea level in her blood had gone down significantly to a healthy level. Not only this, her haemoglobin level had also improved. Hence, it was concluded that Punarnava based drugs not only make the kidney's health but

also improve haemoglobin level.

Similarly, another study published in the *Indo American Journal of Pharmaceutical Research* too talked about the efficacy of Punarnava-based herbal formulations.

It was found that the drug had helped in maintaining histological parameter of kidneys, apart from reducing high levels of uric acid.

The study said that "the syrup (Neeri KFT) is a potent nephro-protective formulation, protecting kidneys from nephrotoxins, including oxidative damage induced by lead acetate".

Liver regeneration

Blood holds key to liver regeneration, study suggests (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111577/blood-holds-key-to-liver-regeneration-study-suggests.html>

The liver is the only organ in the body that can regenerate. A recent study shows that the blood-clotting protein fibrinogen may hold the key as to why some patients who undergo a liver resection, a surgery that removes a diseased portion of the organ, end up needing a transplant because the renewal process doesn't work.

We discovered that fibrinogen accumulates within the remaining liver quickly after surgery and tells platelets to act as first responders, triggering the earliest phase of regeneration. But if fibrinogen or platelets are inhibited, then regeneration is delayed, said James Luyendyk, lead author of the study published in the *Journal Blood*.

Platelets are blood cells that help form clots and stop bleeding. When they receive information from fibrinogen, they go into action and accumulate in the remaining part of the liver to help restore it, increasing the chances of a fully functional liver and successful recovery.

Using samples from patients undergoing liver resection and a comparable model in mice, Luyendyk and his team noticed that when fibrinogen was low, the number of platelets in the liver decreased.

This shows that fibrinogen deposits are extremely important and directly impact regeneration in both mice and humans, Luyendyk said.

According to Dafna Groeneveld, co-author of the study, their finding demonstrates that fibrinogen levels could be a predictive marker for doctors, too.

Measuring this protein in liver resection patients may help us determine in advance whether the organ will regenerate successfully or if it will become dysfunctional, she said.

Researchers suggest that these findings could lead to new treatments that would help doctors correct low levels of the protein by using fibrinogen concentrates that can be administered during surgery.

Heart attacks

Heart attacks also common in young adults: Study (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111455/heart-attacks-also-common-in-young-adults-study.html>

A heart attack, known earlier as a disease of the old, is now strikingly common in people aged 40 and below, finds a study.

The study compared people aged 41-50 years and 40 or younger heart attack survivors and found that among patients who suffer a heart attack at a young age overall is 40 or younger.

In addition, the proportion of people below 40 having a heart attack has been increasing, rising by 2 per cent each year for the last 10 years.

"It used to be incredibly rare to see anyone under age 40 come in with a heart attack and some of these people are now in their 20s and early 30s," said Ron Blankstein, Associate Professor at Harvard University.

Importantly, youngest heart attack survivors have the same likelihood of dying from another heart attack or stroke as survivors over 10 years older.

While the traditional risk factors include diabetes, high blood pressure, smoking, family history of premature heart attack and high cholesterol, substance abuse, including marijuana and cocaine were more the reason behind the increased heart attacks in younger patients.

The findings will be presented at the American College of Cardiology's 68th Annual Scientific Session in New Orleans.

For the study, the researchers included a total of 2,097 young patients.

They found that the group below 40 had more spontaneous coronary artery dissection -- a tear in the vessel wall, which tends to be more common in women, especially during pregnancy.

Good habits like avoiding tobacco, regular exercise, heart healthy diet, weight loss if required, managing blood pressure and cholesterol, controlling diabetes if required, and staying away from substance abuse need to be maintained for a good heart, Blankstein suggested.

High blood pressure

A nap a day keeps high blood pressure away: Study (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111306/a-nap-a-day-keeps-high-blood-pressure-away-study.html>

Napping may do more than just rebooting our energy level and improve our mood. It can also keep high blood pressure at bay, a recent study suggests.

Midday sleep appears to lower blood pressure levels at the same magnitude as other lifestyle changes. For example, salt and alcohol reduction can bring blood pressure levels down by 3 to 5 mm Hg, said co-author Manolis Kallistratos.

Overall, taking a nap during the day was associated with an average 5 mm Hg drop in blood pressure, which researchers said is on par with what would be expected from other known blood pressure-lowering interventions. In addition, for every 60 minutes of midday sleep, 24-hour average systolic blood pressure decreased by 3 mm Hg.

These findings are important because a drop in blood pressure as small as 2 mm Hg can reduce the risk of cardiovascular events such as heart attack by up to 10 per cent. Based on our findings, if someone has the luxury to take a nap during the day, it may also have benefits for high blood pressure. Napping can be easily adopted and typically doesn't cost anything, Kallistratos said.

Findings of the study were discussed in a recent meeting held at the American College of Cardiology 68th Annual Scientific Session.

This is the first study to prospectively assess midday sleep's effect on blood pressure levels among people whose blood pressure is reasonably controlled, according to the researchers. The same research team previously found midday naps to be associated with reduced blood pressure levels and fewer anti-hypertensive medications being prescribed among people with very high blood pressure readings.

The higher the blood pressure levels, the more pronounced any effort to lower it will appear. By including people with relatively well-controlled blood pressure, we can feel more confident that any significant differences in blood pressure readings are likely due to napping, Kallistratos said.

In their analyses, researchers adjusted for factors known to influence blood pressure levels, including age, gender, lifestyle and medications. There were no differences in terms of the number of anti-hypertensive medications taken between the two groups, and pulse wave velocity tests and echo-cardiograms were also similar.

Overall, average 24-hour systolic blood pressure was 5.3 mm Hg lower among those who napped compared with those who didn't (127.6 mm Hg vs 132.9 mm Hg). When looking at both blood pressure numbers, people who slept during the day had more favourable readings (128.7/76.2 vs 134.5/79.5 mm Hg). There also appeared to be a direct linear relationship between time asleep and blood pressure; as reported, for each hour of napping, the average 24-hour systolic blood pressure lowered by 3 mm Hg.

We obviously don't want to encourage people to sleep for hours on end during the day, but on the other hand, they shouldn't feel guilty if they can take a short nap, given the potential health benefits, Kallistratos said. Even though both groups were receiving the same number of medications and blood pressure was well controlled, there was still a significant decrease in blood pressure among those who slept during midday.

Researchers said the findings are further bolstered because patients had similar dipping blood pressure rates at night (natural drops during night-time sleep), meaning that any reductions in ambulatory blood pressure were separate from this phenomenon and give greater confidence that reductions in ambulatory blood pressure could be due to daytime napping.

Smoking tobacco

Hookah is harmful for heart, reveals study (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111247/hookah-is-harmful-for-heart-reveals-study.html>

Smoking tobacco through Hookah results in inhaling more toxic chemicals than a cigarette.

The study published in the American Heart Association's journal, called *Circulation*, states that a single session of hookah, that typically lasts 30 or more minutes, typically results in greater exposure to carbon monoxide than a cigarette and that the toxic chemicals, in addition to tobacco, harm the heart and blood vessels.

Hookah is also known as Narghile, Arghile, Shisha and Goza. It has a water bowl containing tobacco, has a head with holes in the bottom, a body, a flexible hose with a mouthpiece, and burning charcoal that is placed on top of the tobacco bowl.

The tobacco for hookah comes in various flavours and often colourful packaging, which appeals to the youth. The sweetness of the flavours masks the harshness of smoke that makes it easier to continue smoking hookahs.

Many young people mistakenly believe that smoking tobacco from a hookah is less harmful than cigarette smoking because the tobacco is filtered through water, but there is no scientific evidence that supports that claim. However, there is evidence to suggest that hookah smoking is addictive and can lead to the use of other tobacco products such as cigarettes, said co-author Aruni Bhatnagar. Hookah users inhale huge smoke filled with large quantities of particulate matter at higher concentrations than cigarettes. Even short-term exposure to carbon monoxide in hookahs is toxic and can interfere with exercise capacity.

In addition to carbon monoxide, hookah smoke contains other potentially harmful chemicals that can affect the cardiovascular system, including nicotine, air pollutants, particulate matter, volatile organic chemicals, polycyclic aromatic hydrocarbons, acrolein, lead, cadmium and arsenic. Most of these toxins are higher in hookah than cigarette smoke.

The study further says that there is evidence that tobacco in Hookah when smoked, impacts heart rate and blood pressure. Constant use of Hookah has been linked with increased coronary artery disease risk.

The trend of Hookah among young people rose with promotions on social media making it seem like a cool hobby to have, better than smoking a cigarette because that has been proven toxic and unhealthy.

There is a constant misperception that smoking tobacco from a Hookah is harmless whereas it is not as proven by the study.

Migraine

Migraine raises risk of dry eyes: Study (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111219/migraine-raises-risk-of-dry-eyes-study.html>

Suffering from migraine? You could be at higher odds of having chronic dry eye disease, says a new study.

The chronic dry eye is a common disease in which natural tears fail to adequately lubricate the eyes, thus affecting its functioning and lessening a person's quality of life.

The study showed that people with migraine had a 20 per cent higher risk of having dry eye disease, the HealthDay reported.

For men, aged 65 or above, having migraine nearly doubled the odds of dry eye disease, and risk in women of the same age was almost 2.5 times.

The association between migraine and dry eye was found to be more among the elderly, particularly for women due to hormonal changes caused by pregnancy, the use of oral contraceptives and menopause, the researchers said.

"Physicians caring for patients with a history of migraine headaches should be aware that these patients may be at risk for concurrent dry eye disease," said Richard Davis, ophthalmologist at the University of North Carolina at Chapel Hill in the US.

For the study, the team examined 73,000 adults.

The findings, published in the journal JAMA Ophthalmology, showed 8-34 per cent of adults may be affected by dry eye disease.

Further, similar underlying inflammatory processes at the cellular level are known to play key roles in both dry eye disease and migraine.

"Inflammatory changes in dry eye disease might trigger similar events in neuromuscular tissue, leading to the development and propagation of migraine headaches," the team noted.

Excessive dryness of the eye's surface might work on key nerve pathways to help trigger migraines, they added.

In addition, rheumatoid arthritis, diabetes, thyroid problems, exposure to smoke, wind and dry climates, and long-term use of contact lenses can also lead to dry eyes, the study noted.

Antibiotic

Gene triggering antibiotic reaction risk identified (New Kerala: 20190311)

<https://www.newkerala.com/news/read/111185/gene-triggering-antibiotic-reaction-risk-identified.html>

Researchers have identified a gene that increases the risk of a severe and potentially life-threatening reaction to the commonly prescribed antibiotic vancomycin.

Vancomycin, used to treat serious and life-threatening bacterial infections, has been known to be a common antibiotic trigger for a severe reaction known as DRESS -- Drug Rash with Eosinophilia and Systemic Symptoms.

The genetic risk factors predisposing specific patients were not known yet.

The new study, led by researchers from the Vanderbilt University in the US, showed that vancomycin triggers DRESS only in people carrying specific variations in human leukocyte antigen (HLA) genes.

DRESS has been characterised by fever, widespread skin rash and internal organ damage.

Routine testing for HLA gene could improve patient safety and reduce unnecessary avoidance of other antibiotics, said the study published in the Journal of Allergy and Clinical Immunology.

Since many patients who develop DRESS are often exposed to multiple antibiotics and other drugs simultaneously, the team used a specific diagnostic test developed in their laboratories called gamma-interferon ELISpot.

ELISpot exposed patients' white blood cells to vancomycin and other concurrently administered antibiotics. This test enabled them to determine which drug was most likely causing DRESS.

"This test will be important in the clinical care of patients starting vancomycin and will prevent mortality and short and long-term complications," said Elizabeth Phillips, researcher at the varsity.

"This observation also represents significant progress as we zero in on the mechanisms of these life-threatening immune-mediated drug reactions," she said.

Standardise equipment to measure blood pressure

Standardise equipment to measure blood pressure (Hindustan: 20190311)

<http://paper.hindustantimes.com/epaper/viewer.aspx>

I keep coming back to certain issues because of their importance and one such topic is the lack of stringent quality control and standardisation in the blood pressure measuring instruments in the country and their adverse impact on the health of the population.

n Miscalibration is an important causes of erroneous measurement of BP by sphygmomanometers, as per a study.

In recent times, the government has launched major campaigns, rightly so, to attack the main causes of morbidity and mortality among citizens and I refer here particularly to hypertension.. However, the success of the programme hinges on the accuracy of the blood pressure measuring instruments and unfortunately, not enough attention has been paid to ensuring the quality and accuracy of these measuring instruments. . Absence of two yearly verification of the accuracy of the machines as required under the Legal Metrology Rules, also result in inaccurate measurement of blood pressure. (I am only writing about the mostly commonly used machine in hospitals and clinics in the country- - sphygmomanometer in this column).

I have come across several cases of inaccuracies in the machine resulting in people without hypertension being prescribed high doses of hypertensive medication, with disastrous consequences and vice versa. One may dismiss these as anecdotal examples, but not scientific studies.

One such study, titled "Equipment errors: A prevalent cause for fallacies in blood pressure recording-A Point Prevalence and Estimate from an Indian Health University", published in the Indian Journal of Community Medicine (B.Mishra, et all, JanMarch 2013) throws the spotlight on the poor enforcement of the Legal Metrology Act and rules vis-à-vis sphygmomanometers. . The research, carried out in a rural health university in Maharashtra, chose 50 mercury sphygmomanometers in regular use in hospital wards, outpatient department, casualty and at the medical college basic science department and found defects affecting the measurement in all of them, pointing to the need for better quality control and standardization, besides, regular verification and certification of those instruments in use.

These instruments consist of a manometer tube with a calibrated scale for measuring the pressure- the study found undercalibration of the manometer tube. Or to be more specific, even though the markings on the manometer tubes were from 0mm to 300 mm, on actual measurement, it was found that none of them recorded 300 mm in length-in fact the mean measurement of the calibrated manometer tube was 287.1 mm- a deficit of 12.9mm. This deficit can result in overestimating BP by 5.12 mmHg systolic and of 3.44 Hg diastolic in a person with normal blood pressure, the paper observed.

Miscalibration is one of the important causes of erroneous measurement of BP by sphygmomanometers, says the study. „” The calibration defects can arise from deficit in the mercury manometer height, presence of baseline deviation and disproportion in the arm bladder cuff. This problem can be compounded by existence of misscuffing with respect to the target population”, the study said..

The study found that , 40% of the sphygmomanometers had baseline deviation, the mean deviation being in excess of 2.5 mmHg and this was more prevalent in outpatient departments and wards, where the wear and tear may be more, highlighting the need for frequent verification. Similarly, checks on the adequacy of the arm bladder cuff showed that over 80 per cent of the equipment was deficient in this parameter- which could lead to an overestimation of BP by 7 mm systolic and 4.3 mm diastolic.

All these together may lead to considerable error in recording the BP, the study pointed out, highlighting the need for Equipments once commissioned for use to be calibrated at regular intervals to prevent the occurrence of erroneous readings.

Ironically, the Legal Metrology Act not only provides for licensing, calibration and verification of sphygmomanometers, but also re-verification every two years and again after any repair undertaken! But who’s enforcing it?

This also brings us to the allimportant question- is the legal metrology the right department to oversee the quality of important medical instruments? This has to be done by a regulator under the health ministry.

Faulty hip implant

Pay ₹74.5L to faulty hip implant patient: Government to J&J ((Hindustan: 20190311)

<http://paper.hindustantimes.com/epaper/viewer.aspx>

Three months after the Union health ministry approved compensation for patients who received Johnson & Johnson (J&J)’s faulty hip implants before August 2010, the government has directed the company to pay ₹74.5 lakh to a patient in the first such order.

On November 29, 2018, a central expert committee under the ministry approved a compensation amount between ₹30 lakh and ₹1.23 crore, based on a specific formula it created to determine compensation amount for the affected patients.

The amount was to be calculated on case-to-case basis depending on the age and the level of disability of a person, with younger people having higher disability getting the maximum compensation. All states were asked to form a state-level committee, to track and verify eligible patients, and to come up with an amount on the basis of the central committee’s formula.

On Friday, the Central Drugs Standard Control Organisation (CDSCO) directed J&J to pay the compensation amount to a patient from Maharashtra within 30 days from the date receipt of the order. Also, a copy of acknowledgment from the patient about the compensation paid must be submitted to CDSCO within the same period.

The application of the Maharashtra patient was examined by the state-level committee that had forwarded their recommendation to the central committee.

“The central committee, after examining the documents, is of the opinion that the patient implanted with faulty Articular Surface Replacement (ASR) hip implant on both hips and subsequent revision of left hip, is entitled for the financial compensation of ₹74,57,180 as per the formula,” read the CDSCO notice.

This is the first case where J&J has been directed to pay compensation to a victim of the faulty hip implant surgery.

While the company refused to comment on the notice, saying it was subjudice, the central drug controller appeared hopeful of compliance.

“We will have to think positive,” said Dr S Eswara Reddy, the Drug Controller General of India. Around 200 applications are under consideration for awarding the compensation.

The faulty ASR hip implants manufactured by DePuy International Limited, a subsidiary of J&J Pvt Ltd, were recalled in 2010 globally with complaints of more than usual revision surgeries because of complications such as metal leaching and infections, among other complications. Following complaints from patients, the health ministry set up an 11-member committee on February 7, 2017, to investigate patient complaints of adverse events against the implant. The report was submitted in February 2018 and had recommended a base amount of ₹20 lakh.

Based on the recommendations, the government constituted a central expert committee under the chairmanship of Dr RK Arya, director, Sports Injury Centre of Safdarjung Hospital, to determine the quantum of compensation.

AIIMS

साढ़े दस हजार करोड़ से अत्याधुनिक बनेगा एम्स (Dainik Jagaran: 20190311)

https://epaper.jagran.com/epaper/article-11-Mar-2019-edition-delhi-city-page_6-9240-9561-4.html

अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) के मास्टर प्लान को केंद्र सरकार से मंजूरी मिलने के बाद अब इस पर अमल का रास्ता साफ हो गया है। मरीजों का भारी दबाव डोल रहे इस संस्थान का अब कायाकल्प हो जाएगा। करीब साढ़े दस हजार करोड़ की लागत से इसे अत्याधुनिक बनाया जाएगा। यदि सबकुछ योजना के अनुरूप हुआ और कोई बड़ी अड़चन आड़े नहीं आई तो छह साल में एम्स मास्टर प्लान की परियोजनाएं पूरी हो जाएंगी।

मास्टर प्लान के तहत एम्स में तीन हजार बेड बढ़ाए जाएंगे। शोध के लिए अत्याधुनिक सुविधा विकसित की जाएगी। एम्स के मास्टर प्लान में कहा गया है कि 63 साल पुराने इस अस्पताल का निर्माण अनियोजित तरीके से किया गया है। संस्थान का परिसर 213 एकड़ जमीन में फैला है और चार हिस्सों में बंटा हुआ है। अब इसे पूरी तरह व्यवस्थित किया जाएगा।

सभी चिकित्सकीय केंद्र एक तरफ किए जाएंगे: मास्टर प्लान के तहत यह तय किया गया है कि सभी नए चिकित्सकीय केंद्र मुख्य परिसर (पूर्वी अंसारी नगर) में एक तरफ बनाए जाएंगे। इस परिसर में मौजूद आवासीय बंगले व फ्लैट हटाए जाएंगे। डॉक्टरों के लिए आवास पश्चिमी अंसारी नगर, ट्रॉमा सेंटर के नजदीक न्यू राजनगर में बनाए जाएंगे। इस पूरी परियोजना पर 10 हजार तीन सौ 45 करोड़ रुपये खर्च होंगे। मौजूदा समय में एम्स में करीब 2478 बेड हैं और ओपीडी में प्रतिदिन करीब 13,000 मरीज इलाज के लिए पहुंचते हैं। मास्टर प्लान के अनुसार तीन हजार नए बेड बढ़ने पर संस्थान की बेड क्षमता करीब साढ़े पांच हजार हो जाएगी।

दो फेज में पूरी होंगी परियोजनाएं: मास्टर प्लान के पहले फेज की परियोजनाएं 46 महीने में व दूसरे फेज की परियोजनाएं करीब 72 महीने में पूरी होंगी। ये परियोजनाएं पूरी होने पर एम्स में करीब दस हजार अतिरिक्त कर्मचारियों की जरूरत होगी, जिसमें से करीब 600 फैकल्टी व छह हजार नर्स होंगे।

Brain Stroke

ब्रेन स्ट्रोक से पीड़ित 84 वर्षीय बुजुर्ग का थ्रोम्बेक्टोमी तकनीक से हुआ इलाज(Dainik Gagan: 20190311)

https://epaper.jagran.com/epaper/article-11-Mar-2019-edition-delhi-city-page_6-8044-9561-4.html

ब्रेन स्ट्रोक (लकवा) से पीड़ित मरीजों के इलाज के लिए थ्रोम्बेक्टोमी तकनीक उम्मीद की नई किरण बनकर सामने आई है। यदि मरीज लकवा लगने के छह घंटे के अंदर अस्पताल पहुंच जाए तो थ्रोम्बेक्टोमी तकनीक से उसकी जिंदगी बचाई जा सकती है। ऐसा ही एक मामला अपोलो अस्पताल में सामने आया है, जहां लकवा से पीड़ित 84 वर्षीय बुजुर्ग का अस्पताल के डॉक्टरों ने इस तकनीक से इलाज कर जिंदगी बचाई है। अस्पताल का कहना है कि इलाज के बाद से मरीज के स्वास्थ्य में सुधार है।

अफगानिस्तान से आया मरीज: अस्पताल के अनुसार मुहम्मद ताहेरायंदा (84) वर्ष अफगानिस्तान के रहने वाले हैं। वह ब्लड कैंसर से पीड़ित हैं। वह इलाज के लिए भारत आए थे। इस दौरान ही उन्हें लकवा लग गया। अस्पताल के न्यूरोलॉजी विभाग के वरिष्ठ कंसल्टेंट डॉ. पीएन रंजन ने कहा कि उन्हें गंभीर हालत में इलाज के लिए अपोलो अस्पताल में भर्ती कराया गया। तभी उनके शरीर के बाएं हिस्से ने काम करना बंद कर दिया। वह ठीक से बोल नहीं पा रहे थे। एमआर (मैग्नेटिक रेजोनेंस) एंजियोग्राफी व मस्तिष्क की एमआरआइ जांच में पता चला कि मस्तिष्क के मध्य की सेरेब्रल आर्टरी में ब्लॉक है। इस पर डॉक्टरों ने थ्रोम्बेक्टोमी की सलाह दी।

Ayurved (Hindustan: 20190311)

http://epaper.livehindustan.com/imageview_149613_92471598_4_1_11-03-2019_i_17.pagezoomsinwindows.php

आयुर्वेद में हो सकता है गुर्दा रोगियों का इलाज

नई दिल्ली | विशेष संवाददाता

शोध

अब आयुर्वेद में गुर्दा रोगियों का उपचार संभव है। औषधीय पौधा पुनर्नवा से बनी आयुर्वेदिक दवाएं गुर्दे की क्षतिग्रस्त कोशिकाओं को पुनर्जीवित कर सकती हैं। हालांकि यह उपचार गुर्दे की खराबी का आरंभ में पता चलने पर ज्यादा प्रभावी होगी। अब तक हुए दो अध्ययनों में इसकी पुष्टि हुई है। आयुष मंत्रालय वैकल्पिक चिकित्सा को बढ़ावा देने के लिए इस पर काम कर रहा है।

आयुष मंत्रालय के सूत्रों ने बताया कि 'वर्ल्ड जर्नल ऑफ फार्मेसी एंड फार्मास्युटिकल साइंसेज' में बीएचयू का एक शोध प्रकाशित हुआ है, जिसमें

- औषधीय पौधा पुनर्नवा से बनी दवाएं गुर्दे पर असरकारी
- हाल ही में दो अलग-अलग अध्ययनों में इसकी पुष्टि हुई

गुर्दे की बीमारी से पीड़ित एक महिला को एक महीने तक पुनर्नवा सीरप दिया गया। इससे उसके रक्त में क्रिएटिनिन का स्तर 7.1 से घटकर महज 4.5 एमजी रह गया, जबकि यूरिया का स्तर 225 से घटकर 187 एमजी तक आ गया। इतना ही नहीं हीमोग्लोबिन का स्तर 7.1 से बढ़कर 9.2 हुआ।

Dieting (Hindustan: 20190311)

http://epaper.livehindustan.com/imageview_149616_71352128_4_1_11-03-2019_i_20.pagezoomsinwindows.php

खतरा : अनियमित डाइटिंग से हो सकता है हृदय रोग

न्यूयॉर्क। क्या आप जब चाहे डाइटिंग करती हैं और जब चाहे छोड़ देती हैं। अगर ऐसा है तो आपमें हृदय रोग का खतरा बढ़ सकता है। नए अध्ययन के अनुसार अनियमित डाइटिंग से वजन में उतार-चढ़ाव होता है। इससे महिलाओं में हृदय रोगों का खतरा बढ़ता है। शोध के अनुसार अगर कोई महिला 4.5 किलो वजन कम करती है या फिर एक साल में उतना वजन बढ़ा लेती है तो इससे हृदय पर नकारात्मक प्रभाव पड़ता है।
