Rabies

Rabies is not a public health priority … important the disease be shifted from radar of states to central government’ (The Times of India: 20190220)


Rabies, an acute viral disease of the central nervous system that affects humans and other mammals, can be prevented by immunisation. While it is present in many countries, the problem in India is acute. Dr MK Sudarshan, founder president and mentor, Association for Prevention and Control of Rabies in India (APCRI), Bengaluru, spoke to Taru Bahl on the solutions:

Rabies is the only disease that has a 100% death rate, compared to 12% for Japanese encephalitis and 6% for swine flu in India. Why has it not been a priority disease with the government?

The World Health Organization (WHO) has rightly placed human rabies under the list of “neglected tropical diseases”. The pattern in countries like India has usually seen deaths that do not occur as outbreaks. These are scattered all through the year and are commonplace in both urban and rural areas, affecting mostly the poor and the homeless. As a result, victims neither receive proper medical care nor any media attention. Rather, it takes sustained and prolonged efforts to provide post-bite rabies prophylaxis and to educate the masses on how and where to avail these life saving services. What makes the access to services even more challenging is the lack of coordination between the medical and veterinary sector to contain the disease in the dogs, that is, at source.

Globally there is a push now towards adopting the “One Health” approach that combines both medical and veterinary services. In the year 2015, WHO declared a global goal of “a dog-mediated human rabies-free world by 2030 or zero rabies cases by 2030”. With India committing to achieve this goal, it has initiated activities under the National Rabies Control Programme (NRCP). But how realistic this is remains a big question mark.

Can India ever get rid of its stray dog menace?
We have about 30 million stray dogs in India. Given the fact that dogs are not animals of economic importance, they do not receive much attention from the department of animal husbandry and veterinary services. Besides, dogs act as companion animals and support many activities like surveillance, rescue, security and relief work. For the poor they are a source of social support for vigilance. Under these circumstances, most dogs have some form of ownership by humans and cannot be “strays” in the strict sense of the word.

In urban areas there is a programme of animal birth control (ABC) conducted by the municipalities and corporations to check their population. However, to be successful and effective, this approach needs to cover about 70% of the stray dog population in any given area in approximately a one-year timeframe. Presently, the municipalities and corporations neither have the funds nor the infrastructure and facilities, or more importantly trained and qualified veterinarians to perform the large number of surgeries that are needed. This has led to a gross wastage of public funds, that have mostly been spent towards a haphazard and weak implementation of the ABC programme.

Why is the government dragging its feet over controlling an ever-increasing dog population?

It is not a disease of public health priority and as a result, other competing major diseases are taking away the limited funds that are available. Presently, state governments with meagre resources are failing even to provide uninterrupted life-saving rabies prophylaxis to dog bite victims in government hospitals. Consequently, it is important that the disease be shifted from the radar of the state governments to the central government.

Is it true that dogs are turning into predators? What is contributing to this change in canine behaviour?

In the cities, packs of hungry stray dogs lie waiting near eateries for food. When they find food in the hands of small children, by instinct they pounce on them and sometimes viciously bite them, and as a result some succumb to injuries. In the wild, sometimes pack of dogs hunt vulnerable small isolated animals like pigs, hares. This has been prevalent since time immemorial and it is only a more sophisticated and improved reporting and tracking system that has put the spotlight on these dimensions of dog behaviour.

Clearly there are gaps in India’s national policy on stray dogs, rabies and its control. What according to you must be done to bridge this?

The organisational structure of NRCP must be revamped to combine both medical and veterinary systems and be geared to deliver One Health services to contain the rabies menace, both in humans and dogs. The One Health approach to rabies control and elimination must entail necessary integration, coordination and collaborative partnerships to eliminate canine rabies as a global human and animal health problem.

Any global examples that India can learn from and adapt given its demographics and sociocultural setting?

Thailand, the Philippines and Sri Lanka are small but have made concerted efforts to successfully contain rabies, both in humans and animals. We can learn from their experience. Meanwhile, in the context of India, we have to improve our public health surveillance, animal census and implementation of dog licensing rules. Other targeted interventions would include waste management, effective ABC and mass dog (anti-rabies) vaccination, awareness
campaigns, and widespread availability of anti-rabies vaccine at all public health facilities. A more coordinated effort has to be seen involving state departments responsible for public health, municipal administration, town administrations, village panchayats and veterinary public health. The problem is complex and unwieldy at the moment, but there is no reason why it cannot be brought under control very soon with some clear directives from the municipal corporations.

Health Cover (The Aasian Age: 20190220)


Standard health cover for individuals on cards

FALAKNAZ SYED
MUMBAI, FEB 19

The insurance regulator wants non-life and health insurance companies to offer a standard mediclaim policy for individuals, covering pre- and post-hospitalisation expenses with a minimum basic cover of Rs 50,000 while the maximum cover can be up to Rs 10 lakh. This mandatory standard product can also be offered on family a faster basis.

As per the draft guidelines released by the Insurance Regulatory and Development Authority of India (IRDAI) on Tuesday, while the terms and conditions would be uniform across insurers, they would be free to decide the pricing. However, the pricing will have to incentivise individuals who buy the product young, continue to renew their policy and have a favourable claim experience, said the IRDAI.

By the draft norms, expenses on hospitalisation are admissible for a minimum period of 24 hours. Pre-hospitalisation medical expenses incurred for a period not less than 30 days prior to the date of hospitalisation would be admissible.

Post-hospitalisation medical expenses incurred for a period of not more than 60 days from the date of discharge from the hospital towards consultant fees, diagnostic charges, medicines and drugs would be paid. The policy will pay for ICU, ICU expenses, dental treatment if necessitated due to an injury, plastic surgery, necessitated due to disease or injury and domiciliary hospitalisation.

The minimum entry age shall be 18 and 65 years, policy can be renewed lifelong.

Anaemic (The Aasian Age: 20190220)


Says Sanjay Datta, Chief Underwriting, Claims and Reinsurance at ICICI Lombard General Insurance, “Since the coverage and the conditions will be standardised people will be able to understand how the policy works and will be able to respond to it.”

Explaining the rationale for standard mediclaim, the IRDAI said, “As health products differ significantly with each other in terms of benefits offered, it is considered essential that the potential customers seeking health insurance shall have an access to the basic health insurance covers so as to enable them to choose the coverage based on the need. At times the prospective customers may have no option, but to choose a product which has embedded certain other covers whether or not such covers are needed.”

Comments and suggestion are invited from all the stakeholders till March 6.
‘Over 45% kids in capital are anaemic’

SHASHI BHUSHAN
NEW DELHI, FEB. 19

A recent study revealed that more than 45.28 per cent children in the national capital within the age bracket of zero to 20 years are found to be anaemic in nature. It also revealed that in the age bracket of 0-10 years around 43.77 per cent of children tested showed abnormal signs of haemoglobin levels and it further increased to 47.76 per cent for children tested in the age bracket of 10-20 years.

The data analysis study conducted by Metropolis Healthcare found that the most common cause of anaemia is the iron deficiency anaemia. While some of the conditions are inherited, at times there can be other reasons for a child to suffer from anaemia.

Commenting on the study, the chief pathologist at the Metropolis Healthcare, Dr Geeta Chopra, said: “It is important to consume food rich in iron. Vitamin C helps in absorption of iron and should always be included in the diet. Another important thing to keep in mind is that tea and coffee interferes with the absorption of iron. Regular monitoring of haemoglobin levels will assure you that your child does not have anaemia.”

Health experts suggested that the most common signs to watch out for anaemia would be lethargy, unexplained fatigue, pale skin, and pale eyes.
‘Killer’ immune cells may lead to universal flu vaccine

The researchers focused on which epitopes were common among all three flu strains. iStock

Scientists have identified ‘killer’ immune cells that can fight all known strains of flu virus, a “game-changing result” that could lead to a universal, one-shot vaccine against the potentially deadly disease.

These microscopic killers are white blood cells that can maintain a memory of previous exposure to a flu strain, said researchers from the University of Melbourne in Australia.

If they recognise an invader, these cells start an immune response to target and kill off the virus—stopping the infection, they said.

Despite hopes that the ‘memories’ of killer cells—formally known as CD8+T cells—could be used to create a vaccine that would last for life, previous studies have shown that these cells could only mount a repeated attack against strain A.

In a study published in the journal Nature Immunology, scientists revealed game-changing results—the ‘killer cells’ can actually fight all influenza strains, A, B and C.

“Our team has been fascinated by the killer cells for a long time,” said Katherine Kedzierska, a professor at the University of Melbourne.

Working with Fudan University in China, the team studied the immune responses of patients to the first outbreak of the avian-derived H7N9 influenza virus (bird flu) in China in 2013.

This outbreak was contracted directly from birds and was dominated by the type A virus. It hospitalised more than 90 per cent of infected people and killed more than 35 per cent of them.

The research found that those patients who recovered within two to three weeks had robust killer CD8+T cell responses, whereas those who died had a diminished presence of the ‘killer’ cells.

“So our next step was to discover how their protective mechanism worked, and if it had potential for a flu vaccine,” said Kedzierska. The flu virus is composed of protein coat that covers its genetic code in its core,” said University of Melbourne PhD candidate Marios Koutsakos.

The team analysed which parts of the flu virus were common in strains A, B and C in order to find out which would be the best target for a universal vaccine.
When infected, our cells dissect the flu virus and use a protein called HLA to present parts of the virus (peptides) on the cell surface, alerting the immune system that they have been compromised.

This HLA and viral peptide combination act as a passport or a unique identifier, known as an epitope.

‘Killer’ cells recognise it, triggering them to kill off the infected cell.

The researchers focused on which epitopes were common among all three flu strains.

“We started with 67,000 viral sequences to look for epitopes common among all the flu viruses. These tens of thousands were eventually narrowed down to three epitopes that were cross-reactive, that is they are common to all flu viruses,” Koutsakos said.

“We identified the parts of the virus that are shared across all flu strains, and sub-strains capable of infecting humans,” he said.

Having established which sections of the virus were conserved or cross-reactive, the researchers then conducted tests to establish if those viral parts did produce a robust immune response.

These flu virus epitopes were found in blood samples taken from healthy humans, and influenza-infected adults and children.

The research team next conducted vaccination tests on mice by using the peptides responsible for activating the killer cells as a form of vaccination.

“Our vaccination test studies revealed remarkably reduced levels of flu virus and inflammation in the airways in animal models,” Koutsakos said.

“These results show that killer T cells provide unprecedented immunity across all flu viruses, a key component of a potential universal vaccine,” Koutsakos said. PTI
Drugs

PM appeals to youth to shun drugs (The Tribune: 20190220)


Calling upon the youth to stay away from drugs and join the campaign against substance abuse, Prime Minister Narendra Modi on Tuesday said drug trade was helping strengthen the hands of terrorists.

“Those associated with drug abuse and its trade are helping the enemies of the country who are launching attacks on our security forces,” the Prime Minister stated while launching the ‘Drug-Free India’ campaign via video-conferencing at a function organised in the Guru Jambheshwar University of Science and Technology here today.

The campaign has been initiated by The Art of Living founder Sri Sri Ravi Shankar in association with the Haryana Government and was telecast live in about 7,000 institutes of higher learning in the country.

In his address on the occasion, the PM said: “Narcotics trade is controlled by anti-social and anti-national elements which are bent upon destabilising peace and harmony in the country.

“Substance abuse is a psychological-sociological-medical problem. The World Health Organisation has stated that around three crore people are affected by the disorder due to drug abuse. The number of deaths due to drug abuse rose by 60% from 2000 to 2019, which is an alarming situation.”

The PM said the Centre and the state government had taken steps to stop cross-border drug trade. “We have prepared a multipronged plan to tackle the menace of drug trade and drug abuse at the national level. The National Action Plan for Drug Demand Reduction (2018-25) includes schemes like preventive education and awareness, capacity building, focused intervention in vulnerable areas, and research and evaluation to curb the menace of drug abuse in states,” the PM said.
“If any youth falls into the drug trap, the family, friends and society have a crucial role to get him out of the crisis and stand by him.... The victims should not shy away from talking about the problem,” he added.

On the occasion, CM Manohar Lal Khattar said the state government had opened 61 de-addiction centres and helped 25,000 youths get rid of drug abuse in five years. The Art of Living founder Sri Sri Ravi Shankar too urged the youth to opt for a healthy life and keep away from any kind of substance abuse.

Countrywide drive

The Prime Minister on Tuesday launched the ‘Drug-Free India’ campaign via video-conferencing at a function organised in the Guru Jambheshwar University of Science and Technology in Hisar.

The campaign has been initiated by The Art of Living founder Sri Sri Ravi Shankar in association with the Haryana Government and was telecast live in about 7,000 institutes of higher learning in the country.

Addiction problem

Numbers too big to ignore (The Tribune: 20190220)


Recognise and address the addiction problem

INDIA has a problem. A recent study has found an inordinately large number of Indians addicted to various substances. While other drugs get more Press, it has been found that alcohol is the most widely used addictive substance. The widespread availability and increasing acceptability of social drinking could account for a large number of users, but it is worrying that 20 per cent of them are addicts. Besides alcohol, the other addictive substances used are cannabis, opioids, sedatives and inhalants.

Outrage, call to action, a police crackdown on some sellers, harsher laws — all these are knee-jerk reactions that follow any time there is information about addiction or of an instance of people dying due to bad, adulterated, substandard substances. It is debatable if any of these measures is a long-term solution, which lies in less quantifiable but more effective social intervention, support to the family and the addict, and so on. It all should start with a more humane treatment of the addict and an honest attempt at reformation. The horrible condition of so-called drug de-addiction centres and the inhuman treatment of patients admitted to such centres are often exposed in the media, and show what is wrong with our approach to this serious and debilitating problem.

Punjab has the dubious distinction of being among the top five states for substance abuse across drug categories. The extent of the problem is known to everyone except, perhaps, the political class that maintains a blinkered vision on this matter. Indeed, allegations abound about the drug dealers’ network of sympathisers, nay, even collaborators, among those tasked to catch them.
Such people need to be brought to book, and prosecuted to the full extent of the law. They corrode the moral fabric of the people and deserve no sympathy. Alcohol, the most widely used substance, is legally available in most parts of the country. Combating this addiction calls for a slew of calibrated responses that help the addict without the fear of ostracisation. Recognising the problem and acknowledging it is the first step; the rest will follow.

Blindness’

World’s first gene therapy to halt most common cause of blindness’ (The Tribune: 20190220)


‘World’s first gene therapy to halt most common cause of blindness’

The operation involves detaching the retina and injecting a solution containing a virus underneath.

LONDON: Oxford researchers claim to have carried out the world’s first gene therapy operation to halt age-related macular degeneration (AMD), the leading cause of untreatable blindness in the developed world.

Dry AMD is a slow deterioration of the cells of the macula. It affects the central part of a patient’s vision with gaps or ‘smudges’, making everyday activities like reading and recognising faces difficult.

If successful, the treatment could have a beneficial impact of patients’ quality of life and their ability to remain independent.

“A genetic treatment administered early on to preserve the vision in patients who would otherwise lose their sight would be a tremendous breakthrough and certainly something I hope to see in the near future,” said Robert MacLaren, Professor at the University of Oxford in the UK.

The first person to undergo the procedure was Janet Osborne of Oxford, said MacLaren, who carried out the procedure at the John Radcliffe Hospital in the UK.

Like many people with AMD, Osborne has the condition in both eyes, but it is more advanced in her left eye. As is typical with this condition, the central vision in her left eye has deteriorated and is very hazy, although her peripheral vision is better.

The 80-year-old said that her restricted vision makes household tasks like preparing vegetables and sewing difficult, and she cannot read for very long. She finds it hard to recognise faces.

Osborne said her motivation for taking part in the trial was the possibility of helping others with AMD.
“I wasn’t thinking of me. I was thinking of other people. For me, I hope my sight doesn’t get any worse. That would be fantastic. It means I wouldn’t be such a nuisance to my family,” she said.

The operation involves detaching the retina and injecting a solution containing a virus underneath.

The virus contains a modified DNA sequence, which infects cells, called the retinal pigment epithelium (RPE), and corrects a genetic defect that causes AMD.

Ideally if successful, gene therapy would only need to be performed once, as the effects are thought to be long-lasting.

A key factor in AMD is the complement system, a system of proteins in our immune system that fights bacteria.

In macular degeneration, these proteins are over-active and start to attack the retinal cells, in a similar way to how they would attack bacteria.

“We are harnessing the power of the virus, a naturally occurring organism, to deliver the DNA into the patient’s cells,” MacLaren said.

“When the virus opens up inside the retinal cell it releases the DNA of the gene we have cloned, and the cell starts making a protein that we think can modify the disease, correcting the imbalance of the inflammation caused by the complement system,” he said.

“The idea of this gene therapy is to ‘deactivate’ the complement system, but at a very specific point at the back of the eye, so the patient would otherwise be unaffected by it, and we hope that in future it will slow down the progression of macular degeneration,” said McLaren.

“We have a better understanding now on the relationship between the complement system and the AMD disease which lead us to the discovery that restoring the balance of a hyperactive complement system could be a potential therapeutic approach in dry AMD,” said Peter Lachman, the scientist from the University of Cambridge.

The aim of the therapy is to halt the progress of the condition and preserve what vision patients have remaining.

If successful, it is hoped that gene therapy can be used in the future on patients with early AMD and so halt the disease before their vision has started to deteriorate. PTI

Gene

Gene that may help reverse depression identified (The Tribune: 20190220)

Scientists have identified a gene that may be activated to reverse symptoms of major depression such as social isolation and loss of interest.

The team found that making the SIRT1 gene inactive in excitatory neurons in male mice created symptoms of depression.

According to the study published in the journal Molecular Psychiatry, a drug that activated SIRT1, reversed the symptoms.

"It has an antidepressant-like effect," said Xin-Yun Lu, a professor at Augusta University in the US.

That means drugs that activate SIRT1 and enable the usual high level of activity of these excitatory neurons might one day be an effective therapy for some with major depression, said Lu.

The firing of excitatory neurons is definitely decreased in depression, and neurons are not communicating as they should. Problems like manic behaviour and seizures, on the other hand, indicate excessive firing.

It is hard to get excited without energy, and another of SIRT1’s known roles in brain cells is regulating cell powerhouses, called mitochondria.

The scientists found that at least part of the way knocking out SIRT1 in males impacted the excitability of these normally excited neurons was by reducing the number of cell powerhouses and the expression of genes involved in powerhouse production.

The depressed behaviours they saw as a result are another indicator of SIRT1’s importance in that region to mood regulation and how without it, there is insufficient excitation of neurons.

However, there was a lack of impact in female mice, even though the SIRT1 variant was first identified in a large gene study of depressed women, researchers said.

They suspect physical differences in this front region of the brain, like differences in the numbers of neurons and synapses between males and females, could help explain the sex differences they found.

The team is already working on similar sex disparities in the hippocampus, another brain region important in depression as well as other conditions like Alzheimer’s. — PTI

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**Inhalant addicts**

**More than 4 lakh children are inhalant addicts: survey (The Hindu: 20190220)**

Uttar Pradesh, Andhra Pradesh, Punjab, Chattisgarh and Arunachal Pradesh have emerged front runners in alcohol abuse and health complications arising due to the addition, according to a survey conducted by the National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, Delhi.

The survey, which was submitted to the Union Ministry of Social Justice and Empowerment on Monday, noted that 5.7 crore people in the country suffered from alcohol related problems. Also of the 16 crore people who consumed alcohol across the country, prevalence of alcohol consumption was 17 times higher among men than among women.

More than four lakh children and 1.8 million adults needed help for inhalant abuse and dependence, the report said.

The survey, conducted to ascertain the magnitude of substance abuse in the country, was carried out between December 2017 and October 2018. It covered 4,73,569 individuals in the 10-75 age group. High prevalence of consumption of alcohol was also reported in Tripura and Chhattisgarh.

Cannabis use

The survey also revealed that about 3.1 crore individuals consumed cannabis, with 72 lakh of them needing help for cannabis use problems. Uttar Pradesh, Punjab and Odisha registered maximum cannabis dependence.

The most common opioid used was heroin. The current use of heroin was 1.14%, followed by pharmaceutical opioids (0.96%) and opium (0.52%). Here, the abuse was found most prevalent in Uttar Pradesh, Punjab and Haryana.

The Ministry for Social Justice and Empowerment maintained that a national guideline would be formulated after detailed consultation with all stakeholders to counter the drug menace in the country.

**Feminine Hygiene (The Aaian Age: 20190220)**

Smoking

Smoking over 20 cigarettes a day can cause blindness (New Kerala: 20190220)

While excessive smoking has been linked to various health issues, including heart disease and cancer, a new study has warned that smoking over 20 cigarettes a day can cause blindness.

The study from the Rutgers University noted that chronic tobacco smoking can have harmful effects on "spatial and colour vision".

The findings, published in the journal Psychiatry Research, noted significant changes in the smokers' red-green and blue-yellow colour vision. This suggests that consuming substances with neurotoxic chemicals, such as those in cigarettes, may cause overall colour vision loss.

Heavy smokers also have reduced ability to discriminate contrasts and colours compared with non-smokers.

"Our results indicate excessive use of cigarettes, or chronic exposure to their compounds, affects visual discrimination, supporting the existence of overall deficits in visual processing with tobacco addiction," said Steven Silverstein from the Rutgers's Behavioral Health Care.

"Cigarette smoke consists of numerous compounds that are harmful, and it has been linked to a reduction in the thickness of layers in the brain, and to brain lesions, involving areas such as the frontal lobe, which plays a role in voluntary movement and control of thinking, and a decrease in activity in the area of the brain that processes vision," he said.

For the study, the team looked at 71 healthy people who smoked less than 15 cigarettes in their entire lives and 63 people, who smoked over 20 cigarettes a day. The participants were in the 25-45 year age group.

The study's findings showed noticeable changes in the red-green and blue-yellow colour vision of the heavy smokers.

Previous studies had also pointed to long-term smoking as doubling the risk for age-related macular degeneration and as a factor causing lens yellowing and inflammation.

Obesity

Obesity causing genes identified (New Kerala: 20190220)


Researchers have identified genetic variants associated with obesity that is central to developing targeted interventions to reduce the risk of chronic illnesses like hypertension, Type-2 diabetes and heart disease.

The team from the University of North Carolina at Chapel Hill found genetic sites that affect human body's size and shape, including height and obesity. The findings will help understand how genes can predispose certain individuals to obesity.
In the study, published in the journal Nature Genetics, researchers found 24 coding loci (or positions) -- 15 common and nine rare -- along chromosomes of individuals that predispose to higher waist-to-hip ratio.

Higher values of waist-to-hip ratio are associated with more incidence of diseases associated with obesity.

"For the first time, we were able to examine, on a large scale, how low-frequency and rare variants influence body fat distribution," said North.

"A better understanding of the genetic underpinnings of body fat distribution may lead to better treatments for obesity and other downstream diseases obesity also impacts, for example Type-2 diabetes and heart disease," suggested North.

Further analysis revealed pathways and gene sets that influenced not only metabolism but also regulation of body fat tissue, bone growth and adiponectin, a hormone that controls glucose levels and breaks down fat.

Performing functional studies across other organisms, the team also identified two genes that were associated with significant increase in triglyceride and body fat across species.

**Oral antifungal drug**

**Oral antifungal drug raises risk of miscarriage: Study (New Kerala: 20190220)**


Using a common medication to treat vaginal yeast infections during pregnancy could be associated with an increased risk of miscarriage, researchers warned.

While topical treatments are used as the first line for pregnant women with fungal infections, oral drug fluconazole is also used during pregnancy.

The study, published in the journal Canadian Medical Association Journal, showed pregnant women who took oral version of the drug fluconazole were more likely to experience miscarriage than those who did not.

"Our study shows taking oral fluconazole during pregnancy may be associated with higher chances of miscarriage," said Anick Berard from the University of Montreal, Canada.

Higher doses of oral fluconazole (over 150 mg) during early pregnancy may also be linked with higher chances of giving birth to a baby with heart defect, she added.

The study re-emphasises safe practices during pregnancy, which include correct diagnosis and choosing the safest medication with the largest body of data. For the study, researchers studied data on 441,949 pregnancies.
During pregnancy women often get thrush -- a yeast infection caused by the Candida species of fungus, usually Candida albicans -- because of changes going on in the body, especially during the third trimester.

Thrush during pregnancy can be treated with cream or a tablet inserted in the vagina (a pessary) that contains clotrimazole or a similar antifungal drug.

While thrush can also be treated with fluconazole, it should not be taken during pregnancy, or even those trying to get pregnant or breastfeeding, according to the UK National Health Service (NHS).

**Adolescent female blood donors**

**Adolescent female blood donors at risk for iron deficiency and associated anaemia: Study (New Kerala: 20190220)**


A new study now finds that female adolescent blood donors are more likely to have low iron stores and iron deficiency anaemia than adult female blood donors and nondonors, which could have significant negative consequences on their developing brains.

The study, led by authors from John Hopkins, proposes a variety of measures that could help this vulnerable population.

Although blood donation is largely a safe procedure, adolescents are at a higher risk for acute, adverse donation-related problems, such as injuries from fainting during donation, explain study leaders Eshan Patel, and Aaron Tobian.

Additionally, they add, blood donation may also increase the risk of iron deficiency, as each whole blood donation removes about 200-250 milligrams of iron from the blood donor. Because adolescents typically have lower blood volumes, when donating the same amount of blood, they have a relatively higher proportional loss of haemoglobin--the iron-containing protein in blood cells that transports oxygen--and consequently more iron during donation than adults.

Females are even more at risk of iron deficiency than males due to blood loss during menstruation every month.

Numerous studies have shown that younger age, female sex and increased frequency of blood donation are all associated with lower serum ferritin levels (a surrogate for total body iron levels) in blood donor populations.

However, note Patel and Tobian, no study using nationally representative data has compared the prevalence of iron deficiency and associated anaemia between blood donor and nondonor populations, specifically adolescents.
The researchers analysed data from the National Health and Nutrition Examination Survey, a long-running study designed to assess the health and nutritional status of adults and children in the U.S. based on both physical exams and interviews conducted by the Centers for Disease Control and Prevention. From 1999 to 2010, this study included collections of blood samples as well as questions about blood donation history in the past 12 months.

The researchers found 9,647 female participants 16-49 years old who had provided both samples and blood donor history information. There were 2,419 adolescents ages 16-19 in this group.

They report in the journal Transfusion on February 19 that about 10.7 per cent of the adolescents had donated blood within the past 12 months, compared with about 6.4 per cent of the adults.

Mean serum ferritin levels were significantly lower among blood donors than among nondonors in both the adolescent (21.2 vs. 31.4 nanograms per milliliter) and the adult (26.2 vs. 43.7 nanograms per milliliter) populations. The prevalence of iron deficiency anemia was 9.5 per cent among adolescent donors and 7.9 per cent among adult donors--both low numbers, but still significantly higher than that of nondonors in both age groups, which was 6.1 per cent. Besides, 22.6 per cent of adolescent donors and 18.3 per cent of adult donors had absent iron stores.

Collectively, the authors say, these findings highlight the vulnerability of adolescent blood donors to associated iron deficiency.

Patel and Tobian note that some federal policies and regulations are already in place to protect donors in general from iron deficiency due to this altruistic act, such as haemoglobin screening, a minimum weight to donate and an eight-week interval between donations for repeat whole blood donation. However, more protections are necessary for adolescent donors--for example, suggesting oral iron supplementation, increasing the minimum time interval between donations or donating other blood products such as platelets or plasma rather than whole blood could help mitigate iron loss.

Swine Flu

स्वाइन फ्लू के 609 नए मामले आए सामने (Dainik Gagaran: 20190220)

सात लोगों की हो चुकी है मौत: कंट्रीय रोग नियंत्रण केंद्र (एनसीडीसी) की रिपोर्ट के अनुसार 10 फरवरी तक दिल्ली में स्वाइन फ्लू के 1669 मामले व सात लोगों की मौत होने की पुष्टि हो चुकी है। मरीजों का आंकड़ा 17 फरवरी तक बढ़कर 2278 हो गया है।

सबसे जुकाम व तेज बुखार है तो डॉक्टर को दिखाया: स्वाइन फ्लू होने पर तेज बुखार, गले में खराब, शरीर में दर्द व सर्दी जुकाम होता है। कई मरीजों को सांस लेने में परेशानी भी हो सकती है।

ये लोग बरते विशेष सावधानी: डॉक्टर कहते हैं कि बच्चों, बुजुर्गों व गर्भवती महिलाओं के लिए स्वाइन फ्लू खतरनाक साबित हो सकता है। इसके अलावा पुरानी बीमारियों से पीड़ित मरीजों की रोग प्रतिरोधक क्षमता पहले से कम होती है। इसलिए बच्चों, बुजुर्गों, गर्भवती महिलाओं व पुरानी बीमारियों से पीड़ित मरीजों को विशेष सावधानी बरतनी चाहिए। भीड़ वाले स्थानों पर जाने से बचें। घर से बाहर निकलने समय एन-95 मास्क का इलेमेंट कर सकते हैं।

Swine Flu (Hindustan: 20190220)

http://epaper.livehindustan.com/imageview_111041_72483284_4_1_20-02-2019_i_5.pagezoomsinwindows.php

Kidney Transplant

सरकारी अस्पतालों में कमजोर पड़ता जा रहा है किङ्गी प्रत्यारोपण कार्यक्रम(Dainik Gagaran: 20190220)

यारोपण संगठन (नोटो) के आंकड़े कहकर हैं। सरकारी के कुछ अस्पतालों में ही प्रत्यारोपण की सुविधा है। उनमें भी हर साल किडनी प्रत्यारोपण सहजी कम हो रही है, जिसका प्रायः निजी अस्पताल उठा रहे हैं।

सरकारी अस्पतालों में सुविधाएं सीमित होने के कारण आर्थिक रूप से कमजोर ज्यादातर मरीजों को प्रत्यारोपण की सुविधा नहीं मिल पाती। एस में किडनी की खराबी से पीड़ित ऐसे कई मरीज हर रोज दिख जाएं, जिनमें परिवार के लोग किडनी दान करने के लिए सैलरी होते हैं, फिर भी जल्दी प्रत्यारोपण नहीं हो पाता। आंकड़े बताते हैं कि एस में कुछ समय पहले तक हर माह 11-12 मरीजों को किडनी प्रत्यारोपण हुआ करता था, जबकि पिछले साल हर महीने औसतन 30 मरीजों का प्रत्यारोपण हुआ। एस में लंबे समय से किडनी प्रत्यारोपण हो रही है। सफदरजंग, आरएमएल अस्पताल व व्यापारीय यकृत व फिल्ड विभाग संयंित (आईएलबीएस) में इसकी सुविधा है। इनमें कुछ लाठी से ही किडनी प्रत्यारोपण शुरू हुआ है। फिर भी इनमें भी प्रत्यारोपण पट गए हैं। नोटो के आंकड़ों के अनुसार 1995 से अब तक दिल्ली में 15 हजार 71 किडनी प्रत्यारोपण हुए हैं। इनमें के 12 हजार 421 निजी अस्पतालों में हुए सरकारी अस्पतालों की भागीदारी 17.58 सीट (2,650) ही है। इनमें अनके एस में ही 2260 प्रत्यारोपण हुए हैं। नोटो की निदेशक डॉ. बसंती रमेश ने कहा कि सरकारी अस्पतालों में अंग प्रत्यारोपण कार्यक्रम बढ़ाने के प्रयास जारी हैं। सरकारी अस्पतालों में प्रत्यारोपण कार्यक्रम मजबूत होने पर अधिक से अधिक मरीजों को सुविधा मिल पाएगी।

सरकारी अस्पतालों में कमजोर पड़ना जा रहा है किडनी प्रत्यारोपण कार्यक्रम

Plus Polio (Hindustan: 20190220)
पल्स पोलियो अभियान के लिए घटिया टीके भेजे

झारखंड

टांकी | हिमाचल ब्यूरो

केंद्रीय स्वास्थ्य मंत्रालय की ओर से पूरे देश में पल्स पोलियो टीकाकरण अभियान में उपयोग के लिए घटिया बाईबलेट औरल पोलियो वैक्सीन (बीओपीबी) की आपूर्ति कर दी गई।

विभिन्न राज्यों में पोलियो अभियान के संचालन के लिए कुल 71 बैच की वैक्सीन भेजी गई है, जिनमें से 55 बैच बीएस औरल, 16 बैच बीएस तीन फरवरी। ये सभी वैक्सीन बायोमेड, गाजियाबाद, उत्तर प्रदेश में बनी है।

स्वास्थ्य मंत्रालय की ओर से सभी 71 बैच के बीओपीबी की जांच कराई गई थी। इसके बाद स्वास्थ्य मंत्रालय भारत सरकार में डीसी (इम्युनाइजेशन इंचार्ज) डॉ. प्रदीप हलदर ने 14 फरवरी को सभी राज्यों को पत्र भेजकर उक्त पांच बैच की ओरल पोलियो वैक्सीन का उपयोग अभियान में नहीं करने का निर्देश दिया है।

वैक्सीन के उक्त बैच में बी100218, बी120318, बी100318, बी130318 एवं बी100418 शामिल है। साथ ही इन सभी बैच की दवाओं को स्टॉक से हटा लेने को कहा है। उन्होंने पल्स पोलियो अभियान में केवल 66 बैच की वैक्सीन के ही उपयोग करने का निर्देश दिया है।

वैक्सीन की जांच होने और उसमें फेल होने के कारण तीन फरवरी से शुरू होनेवाला पल्स पोलियो टीकाकरण अभियान अब 10 मार्च से शुरू होगा। घटिया वैक्सीन की आपूर्ति का मामला गत वर्ष अक्टूबर में भी सामने आया था।
Mahamana Cancer Centre (Hindustan: 20190220)

महामन्त्री कैसर सेंटर में 
बनेगी न्यूक्लियर मेडिसिन

वाराणसी | निज संवाददाता

प्रधानमंत्री नरेंद्र मोदी ने मंगलवार को बीचचूए के सुंदर बागिया में बने उत्तर भारत के अत्याधुनिक महामन्त्री मालवीय कैसर सेंटर का लोकार्पण किया। 350 बिस्तरों वाले इस अस्पताल में ओपीडी व रेडिएशन थिरेपी के साथ ऑफिशियल तथा डे केयर की सुविधा मिलेगी। कैसर सेंटर में उत्तर प्रदेश का पहला साइक्लोट्रॉन भी स्थापित होगा, जहां न्यूक्लियर मेडिसिन का निर्माण कर कैसर के मरीजों को जान बचाई जाएगी।

प्रधानमंत्री ने कैसर सेंटर भवन के भ्रमण के दौरान डॉ. सतन्त्री प्रधान तथा डॉ. पंकज चतुर्वेदी से सुविधाओं की मुद्दाएं प्राप्त कीं। इस दौरान डे केयर यूनिन्ट में भर्ती कैसर के कुछ मरीजों से हालचाल भी पूछा। प्रधानमंत्री ने पहले महामन्त्री की प्रतिमा पर माल्यार्पण किया, फिर रिमोट से महामन्त्री मालवीय कैसर संस्थान का लोकार्पण किया।

प्रदेश का पहला सेंटर
महामन्त्री मालवीय कैसर सेंटर प्रदेश का पहला सेंटर होगा जहां कैसर के उपचार में उपयोगी न्यूक्लियर मेडिसिन तैयार की जाएगी। टाटा मेमोरियल कैसर संस्थान के निदेशक डॉ. आर्णेब बडवे ने बताया कि यहां शीघ्र ही स्थापित होने वाले साइक्लोट्रॉन से रेडियो इसोटोप बनाया जाएगा जिसे आम बीबीएल में न्यूक्लियर मेडिसिन कहा जाता है।

जून से सभी सुविधाएं
महामन्त्री मालवीय कैसर सेंटर में मई से यहां प्रतिदिन सर्जरी व रेडिएशन थिरेपी आरंभ हो जाएगी। यह सेंटर जून से सभी सेवाओं आरंभ कर देगा। यहां सभी प्रकार की जांच के साथ भर्ती की सुविधा गुरू होगी। कैसर सेंटर में इलाज के बार स्टर होगा। पहले सर्क में बीबीएल कार्ड धारी होंगे जिनका मुफ्त में इलाज होगा।
मेडिटेशन एप के इस्तेमाल से तनाव को कम कर रहे युवा स्मार्टफोन बन रहा मेडिटेशन का साथी
लेक्टर

नई दिल्ली | हिंदी

तकनीक के दौर में लोगों को स्मार्टफोन की तरीका लग जुगकी है। डिजिटल गेजेट्स का आधुनिक इस्तेमाल तनाव और एकाग्रता में कमी के रूप में सामने आ रहा है। लैपटॉप या सामग्री भी तकनीकी गेजेट्स से ही खिचा जा रहा है। तमाम की फ्लाक एवं एकाग्रता बढ़ते ही आपने अर्कसोफोन और कंप्यूटर का सहारा ले रहे हैं।

तनाव पर नियंत्रण रखने के लिए हेडरेस, बॉडफाइट, कॉम्युन एवं उपचारों में सहित हो रहे हैं। ये एप यूजर को किसी कोच की तरह ही दिशानिदेशक हो रहे हैं। इन एप्स का डिजाइन करने की गतिविधियों को भी है और लातूरी मोटरिफिकेशन भी है।

अलग-अलग यूजर के लिए अलग-अलग: मेडिटेबैन्स एवं एलग-अलग यूजर के हिसाब से डिजाइन किए गए हैं। मेडिटेबैन्स की शुरुआत के बाद कोई छोटी अवधि की एक्सप्रेस आत्मांजलि करने वालों के लिए है डिजाइन्ड अच्छा विकल्प है। अफिस ब्रेक या मेडिटेबैन्स के सफर के दौरान भी इसका उपयोग कर सकते हैं। वही सीरिज मेडिटेबैन्स करने वालों के लिए धमाल एवं अच्छी विकल्प है।

मेडिटेबैन्स 2.0

बिंदु

इस एप पर मेडिटेबैन्स से जुड़ी प्रभावी और आसान एस्सेसियंज हैं। एक 14 दिनों तक मूड है। इसके बाद 750 रूपए सालाना फीस है।

डाउनलोड मेडिटेबैन्स के लिए योग स्क्वर जबड़ा प्राप्त किया जाता है। इस एप पर कई योग कोशर हैं। एक दिन का 550 रूपए प्रतिमह है।

राउप, बिंदु एवं धन्यवाद इस एप पर मानविक, शारीरिक और भावनात्मक स्थिति का मुहूर्त प्रतिक फिक्स किया जाता है। उसके आसपास पर बिंदुओं सीरिज का सुझाव दिया जाता है।