



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Monday 2022103

Chemotherapy-resistant breast tumour

Researchers find immunotherapies for chemotherapy-resistant breast tumour (The Tribune: 2022103)

Research was performed by King's College London and The Institute of Cancer Research, London

<https://www.tribuneindia.com/news/health/researchers-find-immunotherapies-for-chemotherapy-resistant-breast-tumour-437242>

Researchers find immunotherapies for chemotherapy-resistant breast tumour

The researchers have identified immune cell types that could be targeted to create particular immunotherapies for chemotherapy-resistant breast tumours.

Researchers from King's College London and The Institute of Cancer Research, London, with support from Breast Cancer Now, have performed a deep dive into the different immune markers within tumour tissues and blood samples of early breast cancer patients whose cancer failed to respond to chemotherapy given to them prior to surgery.

The research, published in *Clinical Cancer Research*, a journal of the American Association for Cancer Research, gives insight into the function of immune cells in patients with chemotherapy-resistant breast cancers. While chemotherapy may not kill cancer cells in these high-risk patients, immunotherapy, a type of treatment that helps the immune system to attack cancer cells, may provide a benefit.

To investigate the immune environment that surrounds these chemotherapy-resistant tumours, researchers employed multiple and novel complementary technologies looking at proteins and

genes on both pre-treatment and post-treatment breast cancer tissue. They also measured how 1,330 cancer and immune-related genes within cancer tissues were affected by chemotherapy.

They found that chemotherapy-resistant cancer cells had very few immune cells around them, but chemotherapy did induce changes in several immune cell types. Specifically, they found increases in the number of "innate" (first responder) cells such as neutrophils and natural killer (NK) cells. NK cells help the body to fight infection and cancer. But the analysis found the increased NK cells in patients with chemotherapy-resistant disease lacked cytotoxic activity - the 'killing instinct'

Researchers also found that immune-related genes associated with NK cells were those associated with cell inhibition or exhaustion, which meant NK cells were unable to fight cancer cells. This new insight into the behaviour of NK cells could be used to develop specific immunotherapies for these high-risk patients. This would need to be investigated in future clinical trials. These findings also show that blood monitoring during chemotherapy may help predict chemotherapy response early, potentially allow for tailoring of treatment prior to surgery. Lead author Dr Sheeba Irshad, Cancer Research UK Clinician Scientist at King's College London said: "Chemotherapy resistance in aggressive early breast cancers is a major reason why cancer regrows after treatment, contributing significantly to people not surviving their disease. In order to find the right targets for drug developments, it's important to have a deep understanding of the complex mechanisms that allow some cancer cells to resist treatment, then hide from our immune system to only re-emerge later when they're harder to eradicate." Our work has identified several cell types that would be worth investigating further to understand how they are interacting with the resistant cancer cell and how we can tweak that for our benefit. I am excited to continue to investigate these findings further." Professor Andrew Tutt, Director of the Breast Cancer Now Toby Robins Research Centre at The Institute of Cancer Research, London, and of the Breast Cancer Now Research Unit at King's College London, said: "Great strides have been made in harnessing immunotherapies to treat several types of cancer, but we need to do better to realise their potential for patients with breast cancer.

"This exciting work advances our understanding of the interaction between cancer cells and the immune system during treatment, and why existing treatments work well for some patients, but not others. I hope this research will help us to enhance the anti-cancer immune response in breast cancer, particularly for patients whose cancer has not responded well to chemotherapy." Dr Kotryna Temcinaite, Senior Research Communications Manager at Breast Cancer Now, said: "With an estimated 35,000 people living with incurable secondary (metastatic) breast cancer in the UK, it's vital we develop smarter, more effective treatments to ensure fewer people hear the devastating news the disease has returned and spread to other parts of the body. This exciting early-stage research, which has been part-funded by Breast Cancer Now, helps to lay the groundwork for discovering a way to target breast cancer cells that resist chemotherapy treatment. We hope by building on these findings, scientists will ultimately be able to develop immunotherapy treatments that may help more people survive breast cancer."

Blood tests

Blood tests might help to detect long Covid in patients, says Study (The Tribune: 2022103)

<https://www.tribuneindia.com/news/health/blood-tests-might-help-to-detect-long-covid-in-patients-says-study-437472>

Researchers find a dramatic difference in levels of some of the proteins up to six weeks following infection, suggesting disruption to a number of important biological processes

Blood tests might help to detect long Covid in patients, says Study

The study was published in the Lancet eBioMedicine journal. ANI photo

According to research, a blood test conducted at the time of Covid-19 infection can help indicate whether a person is likely to develop long-term Covid.

The study, published in the Lancet eBioMedicine journal, analysed proteins in the blood of healthcare workers infected with SARS-CoV-2 and compared them to samples collected from healthcare workers who had not been infected.

Usually, protein levels in the body are stable. But the researchers found a dramatic difference in levels of some of the proteins up to six weeks following infection, suggesting disruption to a number of important biological processes.

Using an artificial intelligence (AI) algorithm, they identified a "signature" in the abundance of different proteins that successfully predicted whether or not the person would go on to report persistent symptoms a year after infection.

The researchers say that if these findings are repeated in a larger, independent group of patients, a test could potentially be offered alongside a polymerase chain reaction (PCR) test that could predict people's likelihood of developing long Covid.

The study's lead author Dr Gaby Captur (MRC Unit for Lifelong Health and Ageing at UCL) said, "Our study shows that even mild or asymptomatic Covid-19 disrupts the profile of proteins in our blood plasma. This means that even mild Covid-19 affects normal biological processes in a dramatic way, up to at least six weeks after infection.

"Our tool predicting long Covid still needs to be validated in an independent, larger group of patients. However, using our approach, a test that predicts long Covid at the time of initial infection could be rolled out quickly and in a cost-effective way.

"The method of analysis we used is readily available in hospitals and is high-throughput, meaning it can analyse thousands of samples in an afternoon." Senior author Dr Wendy Heywood (UCL Great Ormond Street Institute of Child Health and Great Ormond Street Hospital) said, "If we can identify people who are likely to develop long Covid, this opens the

door to trialling treatments such as anti-virals at this earlier, initial infection stage, to see if it can reduce the risk of later long Covid." For the study, researchers analysed blood plasma samples from 54 healthcare workers who had PCR, or antibody-confirmed infection, taken every week for six weeks in spring 2020, comparing them to samples taken over the same period from 102 healthcare workers who were not infected.

They used targeted mass spectrometry, a form of analysis that is extremely sensitive to tiny changes in the number of proteins in blood plasma, to look at how Covid-19 affected these proteins over the course of six weeks. The researchers found abnormally high levels of 12 proteins out of the 91 studied among those infected by SARS-CoV-2, and that the degree of abnormality tracked with the severity of symptoms. The research team found that at the time of the first infection, abnormal levels of 20 proteins studied were predictive of persistent symptoms after one year. Most of these proteins were linked to anti-coagulant (anti-clotting) and anti-inflammatory processes.

A machine learning algorithm, trained on the protein profiles of the participants, was able to distinguish all of the 11 healthcare workers who reported at least one persistent symptom at one year, from infected healthcare workers who did not report persistent symptoms after a year. Another machine learning tool was used to estimate the likelihood of error and suggested a possible error rate of 6% for this method.

Aerobic exercise

Lifting weights once a week linked to reduced risk of premature death: Study (The Tribune: 2022103)

<https://www.tribuneindia.com/news/health/lifting-weights-once-a-week-linked-to-reduced-risk-of-premature-death-study-437483>

Lowest risk seen in those who did both weightlifting and aerobic exercise

Lifting weights once a week linked to reduced risk of premature death: Study

It is well known that aerobic exercises, such as running and cycling, can help you live longer, but less has been known about the effect of lifting weights on longevity.

Now, results from a new study suggest that adding weightlifting to your exercise regime, even in later life, is a sensible thing to do if you want to avoid an early death.

The study, published in the British Journal of Sports Medicine, aimed to find out if lifting weights was linked to a lower risk of death from any cause, either on its own or alongside moderate to vigorous exercise.

Moderate-intensity exercise was described as "activity where you worked up a light sweat or increased your breathing and heart rate to moderately high levels", and vigorous activity as

“activity strenuous enough to work up a sweat or increase your breathing and heart rate to very high levels”.

The researchers led by a team from the National Cancer Institute in Rockville, Maryland, analysed data on just under one lakh men and women from ten cancer centres in the US. The participants had an average age of 71 and an average body-mass index of 27.8 (overweight). They followed the group for just shy of a decade, monitoring deaths from any cause, including heart disease.

Around a quarter of people (23 per cent) reported lifting weights, with 16 per cent doing so regularly – between one and six times a week. And around a third (32 per cent) either met or did more than the recommended amount of aerobic exercise.

Weightlifting and aerobic exercise were independently linked with a lower risk of premature death from any cause, except cancer.

For adults who reported no aerobic activity, any weightlifting was associated with a nine per cent to 22 per cent lower risk of early death, depending on how often they lifted weights. For those who did not lift weights but did any level of aerobic exercise, this was 24 per cent to 34 per cent.

However, the lowest risk was seen in those who did both weightlifting and aerobic exercise. For example, lifting weights once or twice a week and doing at least the recommended amount of aerobic exercise had a 41 per cent to 47 per cent lower risk of premature death.

The study also found that women benefited more from weightlifting than men.

Explanation for the findings

Possible explanations for these findings are that weightlifting may have similar beneficial effects to aerobic exercise. For example, reducing heart disease risk factors by improving blood pressure and blood lipid (cholesterol and triglycerides) profile.

Other recent research that combined studies on muscle strengthening and health outcomes found similar results, but also found a reduced risk of cancer, overall. Perhaps this new study did not find effects for cancer as they were targeting a population already at higher cancer risk, given the participants were part of a cancer screening programme. The best effects were again seen from combining aerobic and strengthening activity.

Measuring exercise by asking participants to recall how much they exercised over the past year, for example, is a good option for large observational studies of this type, but it can mean over or under-reporting may influence the findings. A study that used digital devices such as smart watches to measure actual activity would provide more accurate results.

People in this study were also recruited as part of a cancer screening trial, so the study would probably recruit people with an interest in health, which means they might be more physically active as a result. This means that in the general population, the risk of earlier death related to not exercising or lifting weights is possibly even higher.

The findings from this study, and others, show that lifting weights, either on their own or with aerobic exercise, can help reduce the risk of early death. Lifting weights should be a lifelong

commitment. It is never too late to start, and the results could be a healthier, longer life. The Conversation

Medicines

Mansa hospital 'selling' expired medicines (The Tribune: 2022103)

Mansa hospital 'selling' expired medicines

<https://www.tribuneindia.com/news/punjab/mansa-hospital-selling-expired-medicines-436973>

Expired medicines are allegedly being sold at a Mansa-based private hospital after altering dates on strips. A video clip of the incident has gone viral on social media platforms and remained a talking point among residents of the district on Friday.

CIVIL SURGEON ORDERS PROBE

I have ordered a probe and a team of senior health officials has been formed. As per preliminary probe, a few expired medicines apart from others were found, which have been seized. — Dr Ranjit Singh Rai, Civil Surgeon

An employee of the hospital can be seen “tampering” with wrappers of medicines in the clip. The Civil Surgeon has ordered a probe and sought a report from senior health department officials.

Gurlabh Singh Mahal, an activist and complainant, said: “The veracity of the video must be ascertained and if any wrongdoing is found on the part of hospital, strict action must be taken. Selling expired medicines can snuff life out of any patient. Those who want to mint money at the expense of people’s lives must not be spared.”

Dr Ranjit Singh Rai, Civil Surgeon (officiating), Mansa, said: “I have ordered a probe and a team of senior health department officials has been constituted. As per preliminary investigation, a few medicines of expired date apart from other medicines were found, which have been seized by the Health Department. Our team has also taken samples of medicines and sent these for examination. Further action will be taken after the report arrives.”

Active covid cases decline to 36,126

28 fresh fatalities reported (The Tribune: 2022103)

<https://www.tribuneindia.com/news/nation/active-covid-cases-decline-to-36-126-437721>

Active covid cases decline to 36,126

India logged 3,011 new coronavirus infections taking the total tally of covid cases to 4,45,97,498, while the active cases dipped to 36,126, according to the Union Health Ministry data updated on Monday.

The death toll climbed to 5,28,701 with 28 fatalities which includes 20 deaths reconciled by Kerala, the data updated at 8 am stated.

The active cases comprise 0.08 per cent of the total infections, while the national covid recovery rate increased to 98.73 per cent, the ministry said.

A decline of 1,318 cases has been recorded in the active covid caseload in a span of 24 hours.

Chronic pain

‘Chronic pain is India’s hidden health crisis’ (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health-specials/chronic-pain-india-health-crisis-8182146/>

‘People should understand that chronic pain is a disease in itself and early intervention is required to avoid its huge impact on the functional ability and mental health of patients. We see patients suffering for years,’ says Dr Babita Ghai, Professor, Department of Anaesthesia and Intensive Care, Post Graduate Institute of Medical Education and Research, Chandigarh

Chronic pain is often described as a long-standing pain that persists past the normal time of healing or occurs along with a chronic health condition, Dr Babita says

September is observed as the pain awareness month, chronic pain becoming one of the country’s greatest hidden health crises. How do you know if you have chronic pain? If it lasts for three months or more and persists beyond the normal time of healing, you need medical attention. Due to changing lifestyles as well as the ageing population, the number of people suffering from chronic pain is increasing. The commonest cases are those related to the lower back, neck, knees, shoulders, head, orofacial region, herpes and cancer.

What is chronic pain? How would you define it?

Chronic pain is often described as a long-standing pain that persists past the normal time of healing or occurs along with a chronic health condition. It has various causes and needs multidimensional assessment and treatment. Broadly, chronic pain is defined as any pain lasting beyond three months after tissue healing. Though acute pain (<6 weeks) is considered a warning sign and symptom, chronic pain is a condition in itself.

Diet influence chronic pain

Can our lifestyle and diet influence chronic pain? (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health-specials/keto-diet-kidney-function-health-tips-8181773/>

Can a Keto diet harm your kidney function and lead to kidney stones?

When it comes to the Keto diet's effect on the kidneys, it might elevate creatinine levels. Patients experiencing acute symptoms should follow a nutritionist-planned diet based on biomedical parameters. In addition to creatinine, electrolytes and iron must be monitored, says Dietitian Rutu Dhodapkar of the P D Hinduja Hospital's Dietetics team

If you follow the Keto diet strictly, your body will reach ketosis in about four days.

Low-carb and ketogenic diets have become very popular for weight loss. But the high amounts of fat with proteins and fewer carbohydrates can not only increase the risk of high cholesterol but put pressure on the kidneys.

What is a Keto diet and how does it work?

Keto diet is a high-fat, moderate-protein, low-carbohydrate diet. Carbohydrates are not more than 50 gm. When you're on the Keto diet, you're eating too few carbs to support your body's energy needs. As a result, your body turns to burning your stores of body fat to fuel your energy. When your body burns body fat for fuel, it produces ketones, substances made in your liver. Your body enters a metabolic state called "ketosis." If you follow the Keto diet strictly, your body will reach ketosis in about four days. This helps to reduce weight. The ratio is usually 60 per cent fat, 35 per cent protein, and five per cent carbs.

For which disease conditions do the benefits of the diet outweigh the risks?

It may help people with heart disease, epilepsy, certain brain diseases, acne, weight loss, diabetes, Alzheimer's, Parkinson's, polycystic ovaries besides athletes doing heavy exercise. Diet is planned as per the individual. So, it's very essential to take the guidance of a nutritionist as regular monitoring is required to maintain a good balance of all parameters.

Don't miss |Is the Keto diet safe for diabetics? Is it only good for short-term weight loss? Does it increase cholesterol?

What are the effects of a Keto diet on the kidney?

A Keto diet is high in fat, protein and low in carbohydrates. People with normal kidney function can only handle excess protein. For kidney-related problems, we need to monitor protein intake as per the raised parameters. Such patients cannot have a high protein, high fat diet as it may overload the kidney and worsen the problem. Those suffering from kidney ailments should stay away from this diet.

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Ketogenic diets are risky for gallstones and liver disease patients since they can raise LDL cholesterol levels and may increase overall chronic disease risk owing to high fat content. Individuals may feel nausea, vomiting, constipation, acidity and bloating, all of which cause discomfort.

Stone formation can be found in some individuals as a Keto diet is high in fat, salt and animal protein. Loading up on meats, especially processed meats, may increase your risk of kidney stones and gout, a severe form of arthritis. A high consumption of animal proteins raises urine acidity besides calcium and uric acid levels. This combination increases the chance of kidney stones, whereas excessive uric acid increases the risk of gout.

Many individuals on a Keto diet suffer constipation since the diet is low in carbohydrates and may cause nutrient deficiency such as low potassium (which coconut water can help tide over) and vitamin deficiency. As a result, the diet should contain avocado, spinach and lower-carb forms of fibre such as chia seeds and flaxseed.

Individuals can also have Keto flu, which causes their breath to smell fruity. According to a research published in the International Journal of Environmental Research and Public Health in February 2014, acetone is a by-product of ketosis and is largely removed through the lungs and breath. Acetone is a type of ketone that has a fruity scent at low concentrations. It's difficult to estimate how long it will persist because it depends on the individual, but it's usual for someone to suffer this side effect for a few weeks.

Do the diet's health benefits extend to higher risk individuals with multiple health conditions and the elderly?

1After Kanpur accident, UP police advise against travelling in tractor-trolleys

2'Provide sanitary napkins to a girls' school': Delhi High Court directs woman as condition for quashing extortion case

3Delhi: DU Teachers' Association to go on strike today, demands absorption of ad hoc teachers

More from Delhi

The Keto diet also affects each person differently. While some people can transition easily to dietary changes, others may find that their body takes longer to adjust to the sudden changes. It's important to get your cholesterol checked regularly. The Keto diet may decrease cholesterol for some people, but it may increase cholesterol for others.

Heart attack

What are the numbers I need to keep in check to reduce my risk of heart attack? (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health-specials/what-are-the-numbers-i-need-to-keep-in-check-to-reduce-my-risk-of-heart-attack-8180968/>

There's a simple protocol that can help you manage your heart health. Timely intervention is the key, says Dr Sandeep Seth

There are a number of causes for a heart attack: older age, family history of heart attacks, smoking, diabetes and obesity. (File photo)

September 21, 2022: Comedian and national icon Raju Srivastava (58) dies of a heart attack while working out in a gym.

May 31, 2022: Bollywood singer KK aka Krishnakumar Kunnat (53) dies of a heart attack while performing onstage in Kolkata.

September 2, 2021: Sidharth Shukla (40), Balika Vadhu star, died of a heart attack.

October 29, 2021: Kannada superstar Puneeth Rajkumar dies of a heart attack, working out in a gym...

They were all young and died unexpectedly. Some were smokers, some had previously survived a heart attack and some were apparently very fit and working out in gyms. There was a time when heart attacks occurred in old age but now one in five heart attacks occurs in the young. On World Heart Day, let's look at why such heart attacks take place and how we can prevent them.

CAUSES

There are a number of causes for a heart attack: older age (Men above 45 years and women above 55 years), family history of heart attacks, smoking, high blood pressure, high cholesterol, diabetes and obesity. The commonest cause of heart attacks in the young is smoking. A sedentary lifestyle, junk food, work stress and early onset of diseases like diabetes and hypertension.

PREVENTION

You should know your numbers:

Detect hypertension and get it treated (diagnosed by blood pressure above 140/90 mm Hg),

Treat diabetes (blood report of HbA1c above 6.5%, fasting blood sugar > 126 mg/dl)

Control obesity (body mass index calculated from height and weight showing a value more than 25)

Control your raised cholesterol (LDL cholesterol >130, Triglycerides >150).

Regular exercise and walking (30 minutes a day for 5 days a week, walking 6,000-10,000 steps a day)

Stopping smoking and controlling alcohol intake are important.

The diet should be regulated with reduced intake of fatty and processed food. The food should be high in fibre content (eating whole grains and salads). Increased use of nuts including almonds, plenty of fruits rich in anti-oxidants and vitamins, and low in sugar and salt.

Stress can be reduced by meditation, yoga and regular sleep and exercise patterns.

WHEN SHOULD I CHECK WITH MY DOCTOR?

In spite of our best efforts to prevent a heart attack, we can still get one. In that situation, we should not delay going to the hospital. Pain in the chest is often thought to be due to acidity. It usually is, but if the pain persists in spite of antacids, is associated with sweating and radiation to the arm, light headedness and also causing difficulty in breathing, one should not delay and go to the nearest doctor or hospital. Some people may just collapse suddenly and even die. To tackle this, we need to train everyone to recognise these signs of a heart attack and teach them to respond fast by taking such patients to the emergency services. 1After Kanpur accident, UP police advise against travelling in tractor-trolleys

2'Provide sanitary napkins to a girls' school': Delhi High Court directs woman as condition for quashing extortion case

3Delhi: DU Teachers' Association to go on strike today, demands absorption of ad hoc teachers

More from Delhi

Being armed with knowledge works. Saif Ali Khan suffered a minor heart attack in 2013 after which he stopped smoking. Actor comedian Sunil Grover had a heart attack and had a bypass surgery that saved him. Saira Banu also had a heart attack but was immediately rushed to the hospital. They were all saved due to timely interventions. A healthy heart equals a healthy you.

New drug

New drug may turn Covid virus against itself, fight variants (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health/new-drug-may-turn-covid-virus-against-itself-fight-variants-8183675/>

The drug, described in the journal *Nature Chemical Biology*, coats SARS-CoV-2 with chemicals that can temporarily alter the human ACE2 receptor -- the molecule the virus normally latches onto to infect cells

covidMost anti-viral drugs work by directly blocking part of a virus which can pressure it to evolve resistance to the drug (Express Photo by Nirmal Harindran)

Scientists in the US have developed a new drug that can turn SARS-CoV-2 against itself, and prevent the deadly virus from infecting humans.

The researchers from The Scripps Research Institute believe that the drug, called NMT5, is likely to be effective against the emerging variants of SARS-CoV-2.

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The drug, described in the journal *Nature Chemical Biology*, coats SARS-CoV-2 with chemicals that can temporarily alter the human ACE2 receptor — the molecule the virus normally latches onto to infect cells.

When the virus is near, its path into human cells via the ACE2 receptor is blocked. In the absence of the virus, however, ACE2 can function as usual, the researchers said.

“What’s so neat about this drug is that we’re actually turning the virus against itself,” said study senior author Stuart Lipton, a professor at The Scripps Research Institute.

The team tested a library of compounds and pinpointed NMT5 as having two key properties: It could recognise and attach to a pore on the surface of SARS-CoV-2, and chemically modify human ACE2 using a fragment of nitroglycerin as the warhead.

Also Read | Is Covid-19 ending? Virus stabilising, so chances of finding a susceptible person are becoming smaller and smaller

The researchers realised this could turn the virus into a delivery vehicle for its own demise.

They characterised and tested NMT5 in isolated cells as well as animals. The study showed how NMT5 attaches tightly to SARS-CoV-2 viral particles as the viruses move through the body.

The researchers then revealed the details of how the drug adds a chemical, similar to nitroglycerin, to certain molecules if it gets close enough. When the virus gets near ACE2 to infect a cell, that translates into NMT5 adding a “nitro group” to the receptor. When ACE2 is modified in this way, its structure temporarily shifts — for about 12 hours — so that the SARS-CoV-2 virus can no longer bind to it to cause infection. “What’s really beautiful is that this only knocks down availability of ACE2 locally when the virus is coming at it. It doesn’t knock down all the function of ACE2 elsewhere in the body, allowing for normal function of this protein,” said Lipton.

In cell culture experiments testing how well the Omicron variant of SARS-CoV-2 can attach to human ACE2 receptors, the drug prevented 95 per cent of viral binding.

In hamsters with COVID-19, NMT5 decreased virus levels by 100-fold, eliminated blood vessel damage in the animals' lungs, and ameliorated inflammation, the researchers said.

The drug also showed effectiveness against nearly a dozen other variants of the virus, including Alpha, Beta, Gamma and Delta strains, they said.

Most anti-viral drugs work by directly blocking part of a virus which can pressure it to evolve resistance to the drug.

Since NMT5 is only using the virus as a carrier, the researchers think the drug is likely to be effective against many other variants of SARS-CoV-2.

Also Read |Covid may increase heart ailments if it becomes endemic: Expert

“We expect this compound would continue to be effective even as new variants emerge, because it doesn't rely on attacking parts of the virus that commonly mutate,” said Chang-ki Oh, a senior staff scientist and first author of the research.

Though the researchers have only studied the compound in animal models, they are now making a version of the drug to evaluate for human use, while carrying out additional safety and effectiveness trials in animals.

1Bomb threat on Iran-China flight while in Indian airspace, IAF jets scrambled

2Shah to inaugurate library in East Delhi; all eyes on his speech ahead of MCD polls likely in December

3From Kejriwal to Sisodia, birthday greetings pour in for jailed AAP minister Satyendar Jain

More from Delhi

Mental health

Consume these nutrients to boost your mental health (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health/nutrients-to-naturally-reduce-anxiety-8109888/>

Nutritionist Lovneet Batra shared a few such nutrients that play an important role to "support your mental health, alleviate symptoms of anxiety, and promote better brain health"

anxietyCertain nutrients can help reduce anxiety. (Photo: Freepik)

In the current scenario marked by stress and anxiety, mental health has gone for a toss for many. But, did you know that your diet plays a crucial role in alleviating symptoms of anxiety and depression, and helps boost your brain health? Nutritionist Lovneet Batra shared a few such nutrients that play an important role to “support your mental health, alleviate symptoms of anxiety, and promote better brain health”.

Magnesium is a calming mineral that nourishes the nervous system and helps prevent anxiety, fear, nervousness, restlessness, and irritability. The main sources of this nutrient are amaranth leaves, sunflower seeds, walnuts, bananas, and apricots.

There are three types of fatty acids: ALA, EPA, and DHA. Out of these three fatty acids, EPA appears to be the best at helping with anxiety. Good sources of fatty acids are chia seeds, flax seeds, and ghee.

Mental health pre and post abortion

What women should know about taking care of their mental health pre and post abortion (The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health/women-care-mental-health-emotional-health-physical-health-pre-post-abortion-8181951/>

What women should know about taking care of their mental health pre and post abortion

"Some amount of anxiousness and fear before the procedure is normal. Letting go of expectations about how you 'should' feel is crucial," said a doctor, highlighting the feeling of 'guilt' many women experience

By: Lifestyle Desk

abortion, abortions rights India, undergoing an abortion, things to keep in mind before abortion, things to keep in mind after, abortion, abortion and mental health, abortion guilt, safe abortion, healthcare, reproductive rights, indian express news"The cultural perception of abortion, as well as feelings of guilt, may make the process a traumatising one." (Photo: Getty/Thinkstock)

In a big win for healthcare in India, the Supreme Court ruled in favour of abortion for all women — married or single — making it a constitutional right, months after the apex court in the US overturned 'Roe v. Wade' — a 50-year-old legislation that allowed women's access to abortion a federal right in the country.

India's Supreme Court ruled in a significant judgment on Thursday stating that it is unconstitutional to distinguish between married and unmarried women for allowing termination of pregnancy on certain exceptional grounds when the foetus is between 20-24 weeks.

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While it is a massive victory with emphasis on female autonomy in accessing abortion, it is also true that just like other medical procedures, an abortion can also take a toll on a woman's mind and body, especially given that there is a certain social stigma attached to it. We reached out to some experts to understand just how crucial it is to take care of emotional health before and after undergoing an abortion.

ALSO READ |What are the different types of abortion procedures available in India?

According to Dr Thejaswini J, consultant – obstetrician and gynaecologist, Motherhood Hospitals, Electronic City, Bangalore, while abortions performed by qualified doctors are safe and carry very few risks, physically, the mental and emotional impact depends on a “case-to-case basis”.

“Some women experience strong emotions and mood swings after an abortion, mainly due to the hormonal shifts. The hormone levels stabilise as the menstrual cycle returns. Choosing to undergo an abortion can be an emotionally-challenging experience. Women may feel extreme relief and sadness at the same time. They can also experience anxiety, grief, a sense of loss, and sleep disorders. This is natural, but if the negative feelings prolong, they should not be ignored, and help should be sought,” she told this outlet.

Adding to this, Dr Perna Kohli, clinical psychologist and founder of MindTribe.in told indianexpress.com that these emotions may occur immediately after the procedure or over a period of time. “It is important to watch out for signs of prolonged grief, which may happen when feelings of normal grief are avoided and remain unprocessed. The cultural perception of abortion, as well as feelings of guilt, may also make the process a traumatising one,” she said.

What should women keep in mind before undergoing an abortion?

Dr Kohli said it is important to prepare yourself mentally — and in any other aspect that you might think is important — before the procedure. “Some amount of anxiousness and fear is normal; try to understand what thoughts and beliefs might be making you feel this way. Letting go of expectations about how you ‘should’ be feeling is crucial. Whatever the emotional outcome, know that it is okay to feel those emotions and to take some time to not only heal physically, but also mentally,” she said, adding that one needs to be kind to themselves throughout the process.

Dr Thejaswini explained that women should educate themselves about the different types of abortions. “Pregnancies can be terminated medically through pills or surgical procedures. Your doctor will recommend the appropriate method based on your needs and stage of pregnancy,” she said.

ALSO READ |Should you stop using a condom if your partner takes birth control pills?

The doctor said one can discuss their doubts with the expert, ask them about the risks, what they should do to prepare, and the financial costs. etc., besides confiding in and seeking the support of people they trust — spouse, partner, friends and family.

“Remember, deciding to have an abortion does not mean you do not want or love children. People get abortions done for various reasons. Consult a gynaecologist and only choose safe ways to terminate your pregnancy — do not fall for any quick fixes or home remedies, or anything else that may risk your health,” explained Arouba Kabir, a mental health counselor and founder of Enso Wellness.

abortion, abortions rights India, undergoing an abortion, things to keep in mind before abortion, things to keep in mind after, abortion, abortion and mental health, abortion guilt, safe abortion, healthcare, reproductive rights, indian express news Pregnancies can be terminated medically through pills or surgical procedures. (Photo: Getty/Thinkstock)

Dr Thejaswini stated that it is also necessary to have a post-abortion plan. “Ask your doctor what items you will need to stock up at home post the procedure. It could be pain medications, heating pads for cramps, pads to manage bleeding, etc. Take time off work to allow your body to recover.”

Things to keep in mind after the procedure

Dr Kohli said that various studies have proven that abortions do not cause mental health problems, but they do cause a certain amount of stress owing to the stigma, lack of knowledge, and lack of access. “Have some form of social support before, during, and after the process. Talking to this person can bring about a feeling of relief. They can also practise journaling or maintain a thought diary on a regular basis.”

ALSO READ |Post-abortion care: Experts share immediate and intermediate precautions for faster recovery

Arouba concurred and said, “Try to imagine that you have already had the abortion. It can also help to imagine that you have gone ahead with the pregnancy. Often imagining how life would’ve been makes you find solace in the decision you made. Since abortion is an emotionally-taxing procedure, indulging in habits which help you heal physically, mentally, and spiritually is a great way to reconnect with yourself. Start taking light walks, do things that bring you joy, meditate, etc.”

Dealing with the social stigma of abortion

Dr Thejaswini explained that though every woman has the right to a safe and legal abortion in the country, many still face the stigma associated with it. “Women seeking abortions are shamed, bullied and marginalised. This in turn can have disastrous consequences both on their physical and mental health.”

She added that the stigma often forces women to hide their pregnancies; it prevents them from seeking safe healthcare services for abortions, especially unmarried women.

Dr Kohli said the common question that pops up is, ‘What would people say when they get to know about this?’. “The decision to go ahead with the procedure itself takes a toll on the woman’s mental health; the stigma just adds to it, giving rise to feelings of stress, anxiety, and even depression.”

“This is why some people feel forced to go ahead with the unwanted pregnancy or get risky abortions, which can be damaging to the mother and her child,” Arouba said

Post-abortion care

Post-abortion care: Experts share immediate and intermediate precautions for faster recovery(The Indian Express:2022103)

<https://indianexpress.com/article/lifestyle/health/post-abortion-recovery-tips-women-health-8181870/>

"Although the actual process of abortion might not take long, it takes a huge toll on one's body and emotions," Dr Swati Chitnis, Gynecologist and Obstetrician, said

abortion recovery One needs to take a few precautions after the procedure. (file)

The Supreme Court of India's latest landmark ruling — which said that all women are entitled to safe and legal abortion — has once again put medical termination of pregnancy in the spotlight. But, it is also crucial to understand that abortion can be a physically and emotionally exhausting procedure. Thus, it becomes significant to pay special attention to women's health after the process to make sure she recovers well.

"Although the actual process of abortion might not take long, it takes a huge toll on one's body and emotions. One needs to take a few precautions after the procedure. It is important to go to follow-up appointments," Dr Swati Chitnis, Gynecologist and Obstetrician, Shalby Multispecialty Hospitals Ahmedabad, said.

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Agreeing, Dr Gunjan Gupta Govil, Gynaecological and IVF expert, founder and chairman, Gunjan IVF World Group, added that after an abortion, proper self-care is crucial for both physical and mental wellbeing. "Abortion is a low-risk technique that is safe. People should be aware of what to expect both physically and mentally afterwards, though."

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"Recovery times following abortions differ from person to person. For late-term abortions, recovery could take longer. In the event of difficulties, recovery may take several weeks. This is extremely unlikely, though," she explained.

ALSO READ |What are the different types of abortion procedures available in India?

The post-abortion precautions that a woman must follow can be classified into three sections – immediate, intermediate, and long-term precautions.

abortion recovery Follow your doctor's prescribed medications (Source: Getty Images/Thinkstock)

"The immediate precautions are – watch out for bleeding and infection which can be followed by fever, chills, and tummy ache (cramps). Additionally, make sure that the medications

prescribed by your doctor are taken on time and for the right number of days in order to prevent future complications,” said Dr Prathima Reddy, Director, Sparsh Hospital for Women and Children and Lead Consultant – Department of Obstetrics and Gynaecology.

She added that ‘intermediate precautions’ include watching out for excessive bleeding and seeking immediate help if that happens. “Additionally, contraception would be another intermediate and long-term precaution to be taken.”

ALSO READ |Experts on why Supreme Court’s ruling, granting abortion access to all married and unmarried women, is crucial

Post-abortion recovery tips

Here are some precautions you must follow after an abortion, according to Dr Govil.

Viral infections

Viral infections including COVID are among the important causes of dementia – one more reason to consider vaccination (The Hindu:2022103)

<https://www.thehindu.com/sci-tech/health/viral-infections-including-covid-are-among-the-important-causes-of-dementia/article65965812.ece>

COVID-positive outpatients have a more than three-fold higher risk of Alzheimer’s.

Palmerston North (New Zealand), Oct 3 (The Conversation) With more of us living into old age than at any other time, dementia is increasing steadily worldwide, with major individual, family, societal and economic consequences.

Treatment remains largely ineffective and aspects of the underlying pathophysiology are still unclear. But there is good evidence that neurodegenerative diseases – and their manifestation as dementia – are not an inevitable consequence of ageing.

Medicinal fungi may be suitable for identifying novel drugs

Melatonin gummies

Many parents use melatonin gummies to help children sleep. So how do they work and what are the risks? (The Hindu:2022103)

<https://www.thehindu.com/sci-tech/health/how-do-melatonin-gummy-bears-affect-children/article65965585.ece>

Melatonin is a naturally occurring hormone that is related to the timing and quality of our sleep and wake rhythms.

Sleep is important for psychological and physiological health, but many children have trouble getting to sleep, or getting back to sleep when they wake in the night.

This can be exhausting for both children and parents, and some parents have turned to giving their kids lollies containing melatonin. These gummies, purchased overseas or online, are used to improve their children's sleep.

Female hygiene

Sri Lanka cuts tax on female hygiene products (The Hindu:2022103)

A study showed that Sri Lanka's 5.3 million women of reproductive age were unable to afford sanitary products

Sri Lanka's government on Sunday cut taxes on female sanitary products in a bid to help women and girls unable to afford them because of the country's economic crisis.

Even before the downturn last year, many schoolgirls and women in Sri Lanka, like in other poor countries, would stay home when menstruating because they couldn't afford sanitary products.