Next-gen’ COVID-19 vaccines

Next-gen’ COVID-19 vaccines may be needed to tackle emerging variants, say scientists (The Tribune: 20210128)


Variants found so far have undergone changes or mutations that mean they can infect human cells more easily than the original version

‘Next-gen’ COVID-19 vaccines may be needed to tackle emerging variants, say scientists

A healthcare worker fills a syringe with a dose of Bharat Biotech's COVID-19 vaccine called COVAXIN, during the coronavirus disease (COVID-19) vaccination campaign at All India Institute of Medical Sciences (AIIMS) hospital in New Delhi on January 16, 2021. Reuters file photo

The spread of COVID-19 variants is not an immediate problem but it’s time already for next-gen preventives to tackle them, say scientists as countries fine-tune their vaccine dissemination programmes and the race to put more vaccines in the market gathers pace.

Work on vaccines will have to continue on parallel tracks---one to tackle the SARS-CoV-2 virus with first generation vaccines and the other to prepare for possible mutations and new variants---say experts as they map the future course of the infection.

Responding to concerns on the effectiveness of current vaccines in the face of emerging variants, immunologist Satyajit Rath said vaccine-resistant virus variants are either not present or not spreading in sufficient scales and rates to be an immediate problem.

And though the present vaccination campaign will indeed contribute to slowing the pandemic, next-generation vaccines to deal with the “most vaccine-resistant of the emerging variant viruses will need to be developed from now even as we begin to vaccinate communities with
the first-generation vaccines”, the scientist from New Delhi’s National Institute of Immunology told PTI.

An editorial in the journal Virulence earlier this week noted that a threat to vaccine effectiveness comes from emerging strains, both existing—such as the ones reported from the UK, South Africa and Brazil—as well as those yet to come.

The variants found so far have undergone changes or mutations that mean they can infect human cells more easily than the original version of the novel coronavirus that started the pandemic.

A recent study by researchers, including those from The Rockefeller University in the US, suggests that mRNA vaccines for COVID-19 may need to be updated periodically to avoid potential loss of clinical efficacy against the newly arising variants.

The study, posted on the preprint repository BioRxiv, is yet to be peer-reviewed or published in a journal.

An mRNA vaccine uses a synthetic RNA (genetic material) encoded with instructions to make specific proteins of the SARS-CoV-2 virus so the body can generate an immune response without getting the disease.

In some good news, studies have suggested the mRNA vaccines by Moderna and Pfizer appear to work against some of the variants they were tested for.

A small study involving scientists from Moderna found the US pharmaceutical company’s COVID-19 vaccine appears to work against new, more infectious variants of the pandemic virus found in the UK and South Africa.

The yet to be peer-reviewed study suggests that antibodies triggered by the vaccine can recognise and fight the new variants.

Another research released last week suggests the Pfizer vaccine provides protection against the UK variant.

According to experts, the current COVID-19 vaccines are directed at the spike protein of the SARS-CoV-2 virus, and expect to trigger the formation of antibodies that prevent the spike protein of the virus from sticking to human cells during infection.

The effectiveness of these vaccines is likely to be affected most by changes in the cell-binding part of the viral spike protein.

According to immunologist Vineeta Bal, with time the effectiveness of current vaccines will decrease as the coronavirus will mutate even in the future.

“A single new mutation in the currently prevalent virus is unlikely to be sufficient,” Bal, from the Indian Institute of Science Education and Research in Pune, told PTI.
The virus, for its persistence, needs to maintain the ability of the receptor binding domain (RBD) of the spike protein to bind to the ACE2 receptor intact.

The angiotensin-converting enzyme 2, or ACE2 receptor, is the protein that provides the entry point for the coronavirus to hook into and infect a wide range of human cells.

RBD is a key part of a virus located on its ‘spike’ domain that allows it to dock to body receptors to gain entry into cells and lead to infection.

Bal noted that in the long run, vaccines may provide lesser protection due to evolution of the virus.

“That is expected and is also a concern. More than vaccines, monoclonal antibody therapy is likely to be adversely affected,” said Bal.

Monoclonal antibodies are laboratory-made proteins that mimic the immune system’s ability to fight off harmful antigens such as viruses.

“Monoclonal antibodies bind to a very small portion of the RBD and a mutation in that small portion can inhibit binding and hence utility of that monoclonal antibody as therapy.

“But vaccines are likely to trigger many antibodies which together will cover a larger portion of the RBD surface as compared to a monoclonal antibody,” she explained.

There are currently two variants for which there are insightful data sets. One is the British variant, B.1.1.7, and the other is the South African variant, B.1.351.

Florian Krammer, a professor at the Department of Microbiology, Icahn School of Medicine at Mount Sinai, said the British variant may not have a significant impact on vaccine-generated immunity.

“It does not look like B.1.1.7 will have a significant impact on vaccine-induced immunity. There might be some monoclonal antibodies that may not bind/neutralise anymore, but post-vaccination serum seems to do just fine,” he wrote in a tweet.

“However, it is important that high antibody titers are induced and not all vaccine candidates do that. The lower the initial titers, the higher the impact of these variants might be and I do find that worrisome,” the scientist noted.

An antibody titer is the level of antibodies in the blood as determined by a test.

Commenting on the time it could take to modify vaccines to suit future variants, Rath said it could be much easier and quicker to come up with next-generation vaccine variants, since it took the global community less than a year to come up with multiple vaccines to a new virus.

Bal said this may be relatively easier for some vaccines such as the ones based on the viral mRNA than others.
“The mRNA vaccines are possibly easiest to modify, but other vaccines such as adenovirus-based or protein subunit vaccines can also be modified. A regulatory process for the fresh approval of these vaccines will have to be evolved,” she added.

Although the new variants are cause for concern, Rath said “the real practical question is, how much ‘extra’ protective capacity do vaccines generate, and does that ‘extra’ amount compensate reasonably for the ‘drop’ in efficiency? It is this evidence that we should be looking for.”

“A major question that will arise and is not yet being asked is; how well will such a ‘variant’ vaccine work in an individual who has already been immunised with one of the ‘original’ vaccines? The pandemic is not done with us quite yet,” he added.

Covaxin, developed by Hyderabad-based Bharat Biotech, is effective against the UK variant of COVID-19, according to a study on 26 participants, shared by the company on Wednesday.

**Immune cell**

**This immune cell in blood may up severe Covid risk (The Tribune: 20210128)**


The study consisted of 147 patients with mild to fatal Covid-19 who were sampled repeatedly from blood and the respiratory tract

This immune cell in blood may up severe Covid risk

Photo for representation only. Source: iStock.

Researchers have found that patients with severe Covid-19 have significantly elevated levels of a certain type of immune cells in their blood, called myeloid-derived suppressor cells.

In the study, published in the Journal of Clinical Investigation, the team researched one type of immune cell, monocytic myeloid-derived suppressor cells, or M-MDSC, and their potential role in Covid-19.

"Our results help increase the understanding of what causes severe Covid-19 and is an important piece of the puzzle in understanding the connection between the early, innate immune system, which includes M-MDSC, and the later, adaptive immune system, which includes T cells," said researcher Anna Smed Sorensen from Karolinska Institutet.
T cells are part of the immune system and play an important part in the body's protection against viral infections such as Covid-19. M-MDSCs have been shown to increase in other inflammatory conditions, and their suppressive effect on T cell activity has been established.

The role of M-MDSC in respiratory infections, however, is largely unknown. Since low levels of T cells are a hallmark of Covid-19, it is of interest to understand the role of M-MDSCs in this disease.

The study consisted of 147 patients with mild to fatal Covid-19 who were sampled repeatedly from blood and the respiratory tract. These were then compared with patients with influenza and healthy individuals.

The results showed that patients with severe Covid-19 have significantly elevated levels of M-MDSCs in blood compared with milder cases and healthy individuals.

Covid-19 patients had fewer T cells in blood than healthy subjects, and they showed signs of impaired function.

The analysis also showed that the levels of M-MDSCs early in the course of disease seemed to reflect subsequent disease severity.

"There is also a strong clinical connection, as you could potentially use the results to find new biomarkers for severe illness," Sorensen added. — IANS

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**Pandemic**

The poorest have been worst hit by pandemic

By Paaritosh Nath, S Nelson Mandela and Aishwarya Gawali (The Tribune: 20210128)

[Link](https://epaper.hindustantimes.com/Home/ArticleView)

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1. Expert of employment recovery

EMPLOYMENT EXPERIENCE DURING THE PANDEMIC

- January 2020
- February 2020
- March 2020
- April 2020
- May 2020
- June 2020
- July 2020
- August 2020
- September 2020
- October 2020
- November 2020

2. Increasing dietary loss of earnings and food insecurity

POST-FOODSECURITY EARNINGS AS A PROPORTION OF PRE-FOODSECURITY EARNINGS

- July 2020
- August 2020
- September 2020
- October 2020
- November 2020

3. Regional of light measures and support

PERSONAL DAY OF EMPLOYMENT FOR NOVEMBER

- January 2020
- February 2020
- March 2020
- April 2020
- May 2020
- June 2020
- July 2020
- August 2020
- September 2020
- October 2020
- November 2020

4. Regional of light measures and support

PERSONAL DAY OF EMPLOYMENT FOR NOVEMBER

- January 2020
- February 2020
- March 2020
- April 2020
- May 2020
- June 2020
- July 2020
- August 2020
- September 2020
- October 2020
- November 2020
The first part of this series presented a macro picture of India’s labour market situation until December 2020 to argue that even though a recovery is underway, significant challenges remain – one reason there needs to be a larger fiscal support in the forthcoming budget. While doing this, it is important that the condition of the poorest sections of the population, who live on the margins even in normal times, is given special attention. For this, nationally representative surveys such as the Consumer Pyramids Household Survey (CPHS) by CMIE can be usefully supplemented by targeted surveys of poor and vulnerable households.

With this in mind, Azim Premji University carried out a lockdown survey in April and May of 4,942 workers. Six months later (September-November), we revisited the same workers and managed to interview 2,778 of them. Telephone interviews were conducted across 12 states with the help of six partner civil society organisations.

Our sample is very different in composition from that of CPHS, with a greater representation of informal workers, lower caste workers, women workers, and low-income households (see table). Even though findings from this survey cannot be generalised to the entire population, they present a snapshot of Covid-19’s impact on those at the margins.

Covid-19 (The Asian Age: 20210128)
Exporting limited quantities of Covishield is wise as India is unlikely to meet its vaccination target by July

Ten days after the massive COVID-19 vaccination drive began in India to immunise 300 million high-risk individuals first, only over 1.95 million people were vaccinated as of January 25. It is true that while the U.S. took 10 days to breach the one-million mark and the U.K. took 18, India took only six days. The number of people vaccinated each day has been slowly but steadily increasing since day one — from over 1.91 lakh on January 16 to about 3.35 lakh on January 25.

Yet, seen in the larger context, the number of individuals vaccinated so far pales in comparison to the number of children vaccinated each year under the universal immunisation programme. About 25 million children are born each year in India. Millions of children are immunised against 10 vaccine-preventable diseases within the first year of life across the country.

By end-December 2020, Serum Institute of India (SII) had already manufactured about 50 million doses of Covishield. Adar Poonawalla, Chief Executive Officer of SII, had told NDTV that the company manufactures 2.4 million doses each day. On January 11, SII signed an agreement with the Indian government to supply 11 million doses for local use.

At the current rate of 2 lakh jabs per day, it would take about eight years to immunise the target population of 300 million people with two doses of the vaccine. This is provided that COVID-19 vaccination is carried out on all seven days of the week. However, as the Health Ministry has recommended that COVID-19 vaccination should not affect routine immunisation and other health services, most States have been vaccinating only on four days a week. The most populous State, Uttar Pradesh, vaccinates only twice a week.

A single session can vaccinate only 100 people. Until January 25, 35,785 sessions had been held altogether, with the maximum number of sessions held on a given day touching 6,230 on January 21. India plans to vaccinate the target 300 million people by July, which would mean 600 million doses to be administered within the next six months. That would require 33,333 sessions to be held on all seven days to vaccinate 100 people per session to complete the vaccination target by July.
Faster vaccination

Ramping up the vaccination process can be achieved either by increasing the number of vaccination sites or the number of sessions in a site or both. Since each session should have five dedicated people, only large hospitals have increased the number of sessions held per day. The government has permitted vaccine sites to hold only up to seven sessions per day. Similarly, increasing the number of sites per day too would mean finding additional manpower and other resources for each site.

However, increasing the number of sites and/or sessions per day alone will not serve the purpose unless the site selection and number of sessions per site is based on a mapping of people in a given area who are eligible for vaccination. Since one of the priority groups included is people younger than 50 years with co-morbidities, only a bottom-up approach to first identify eligible young people with co-morbidities can help in deciding the number of sites and sessions needed in an area to cover the eligible population.

Editorial | Injecting confidence: On India’s COVID-19 vaccination drive

Given these complexities, India is unlikely to ramp up the number of people vaccinated per day before the target date of July, and hence very unlikely to utilise all the 50 million doses manufactured by SII by end-December before the vaccines reach the expiry date.

Covishield has a shelf life of six months from the date of production. The decision by the government to allow the company to supply limited quantities of vaccines to other countries before they reach the expiry date therefore makes eminent sense. Also, India stands to earn the goodwill of many countries by allowing the export of Covishield, much like in the case of hydroxychloroquine drug export.

Covaxin

Covaxin effective on UK virus strain of COVID-19: ICMR (New Kerala: 20210128)


An Indian Council of Medical Research (ICMR) study on Covaxin shows a comparable neutralization activity of the vaccinated individuals against UK-variant strain.

The ICMR’s National Institute of Virology scientist performed the plaque reduction neutralization test using sera collected from the 26 recipients of Bharat Biotech’s coronavirus vaccine (COVAXIN) against UK-variant strain.
"A comparable neutralization activity of the vaccinated individuals sera showed against UK-variant and the heterologous strain with similar efficiency dispel the uncertainty of possible neutralization escape," stated document appeared in bioRxiv in a pre-print version.

"We successfully isolated and characterized the SARS-CoV-2 from UK returnees in India with all signature mutations of the UK-variant," noted the NIV- Pune scientist.

"We present the neutralizing antibodies (Nab) titers to underline the efficacy of Covaxin vaccine candidate against SARS-CoV-2 UK-variant and one of the heterologous strains. Sera collected from 38 vaccine recipients, who received Covaxin vaccine-candidate in phase-II trial had equivalent NAb titers to homologous strain and two heterologous strains with the characteristic substitution of the UK-variant," said the authors.

"The median ratio of 50 per cent neutralization of sera was found to be 0.8 and 0.9 when compared with earlier detected SARS CoV-2 strains against mutant UK strain," they said.

"Our study evidently highlighted comparable neutralization activity of vaccinated individuals sera against variant as well as heterologous SARS-CoV-2 strains."

"Importantly, sera from the vaccine recipients could neutralise the UK-variant strains discounting the uncertainty around potential escape. It was reassuring from the neutralizing antibodies data generated in our laboratory that the indigenous Covaxin following its rollout in the vaccination program, could be expected to work against the new UK-variant. It is unlikely that the mutation would be able to dampen the potential benefits of the vaccine in concern," it said.

The ICMR scientist mentioned that they have reported the development of an inactivated whole-virion SARS-CoV-2 vaccine (Covaxin) which elicited remarkable neutralizing antibody response in phase I clinical trial against homologous, and two heterologous strains from the unclassified cluster.

In phase II clinical trial, the vaccine candidate showed noteworthy results with plaque reduction neutralization test. The sero-conversion rate with neutralizing antibodies following vaccination with Covaxin was 99.6 per cent.

It is pertinent to note that the rapid surge in SARS-CoV-2 cases due to the Variant of Concern (VOC) in the United Kingdom (UK) raised concerns in several countries.
According to a new study, exposure to antibiotics in the first days of life is believed to affect various physiological aspects of neonatal development.

The findings of the study were published in the journal 'Nature Communications'. The study, led by Bar-Ilan University's Azrieli Faculty of Medicine, revealed that antibiotic treatment within 14 days of birth is associated with reduced weight and height in boys - but not girls -- up to the age of six.

By contrast, the study showed significantly higher body mass index (BMI) in both boys and girls following antibiotic use after the neonatal period, and within the first six years of life. The findings may be the result of changes in the development of the gut microbiome.

The impact of neonatal antibiotic exposure was investigated in a cohort of 12,422 children born between 2008-2010 at the Turku University Hospital in Turku, Finland. The babies had no genetic abnormalities or significant chronic disorders affecting growth and did not need long-term antibiotic treatment. Antibiotics had been administered within the first 14 days of life to 1,151 (9.3 per cent) of the neonates in the study.

The authors found that boys exposed to antibiotic treatment exhibited significantly lower weight as compared to non-exposed children throughout the first six years. They also exhibited significantly lower height and BMI between the ages of two and six. This observation was replicated in a German cohort.

Further, antibiotic exposure during the first days of life was found to be associated with disturbances in the gut microbiome up until the age of two. Infants exposed to neonatal antibiotics exhibited significantly lower gut microbiome richness as compared to non-exposed infants at the age of one month.

Interestingly, at the age of six months, the infants treated with antibiotics reached the bacterial richness level of a control group of infants, and at the ages of 12 and 24 months, the antibiotic-treated subjects gained significantly higher levels of bacterial richness as compared to the control subjects.

In additional experiments led by PhD student Atara Uzan, the researchers demonstrated that germ-free male mice who were given the gut microbiome of antibiotic-exposed infants also displayed growth failure. These findings suggest a potential link between neonatal antibiotic
exposure and impaired childhood growth, which may be a result of alterations caused by antibiotics in the composition of the gut microbiome.

"Antibiotics are vitally important and life-saving medications in newborn infants. Our results suggest that their use may also have unwanted long-term consequences which need to be considered," said Professor Omry Koren, of the Azrieli Faculty of Medicine of Bar-Ilan University, who led the study together with Professor Samuli Rautava, of the University of Turku and the University of Helsinki.

Follow up research will aim to investigate other potential adverse outcomes related to neonatal antibiotic exposure.

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**Post-traumatic stress disorder**

**Brain training may help in treating post-traumatic stress disorder: Study (New Kerala: 20210128)**


A new study suggested that Neurofeedback, also called 'brain training' may be an effective treatment for individuals with post-traumatic stress disorder (PTSD).

The findings of the study were published in the journal 'NeuroImage Clinical'. Neurofeedback consists of exercises where individuals regulate their own brain activity.

In the study from Lawson Health Research Institute and Western University, researchers have found that neurofeedback may be an effective treatment for individuals with post-traumatic stress disorder (PTSD).

"Brain connectivity involves different parts of the brain communicating with each other and helps to regulate states of consciousness, thought, mood and emotion," explained Dr. Ruth Lanius, a scientist at Lawson, professor at Western's Schulich School of Medicine and Dentistry, and psychiatrist at London Health Sciences Centre.

"Individuals with PTSD tend to have disrupted patterns of brain connectivity, but our research suggests they can exercise their brains to restore patterns to a healthy balance," added Lanius.

Neurofeedback uses a system called a neurofeedback loop in which a person's brain activity is measured through sensors placed on the scalp and displayed back to them using a computer interface. This allows the individual to complete exercises and visually see the results.
The trial tested neurofeedback with a total of 72 participants, including 36 participants with PTSD and 36 healthy control participants. Of those with PTSD, 18 were randomized to participate in neurofeedback treatment while the other 18 acted as a comparison group.

The study found that the severity of PTSD symptoms decreased in participants randomized to receive neurofeedback treatment. After treatment, 61.1 per cent of participants no longer met the definition for PTSD. This remission rate is comparable to gold standard therapies like trauma-focused psychotherapy.

The research team also used functional magnetic resonance imaging (fMRI) at St. Joseph's Health Care London to capture brain scans of participants both before and after participation in the trial. They found that individuals with PTSD experienced positive changes in brain connectivity in the salience network and the default mode network following neurofeedback treatment.

"The salience network is involved in detecting threat as part of the 'fight or flight' response. It is normally hyperactive in individuals with PTSD. Meanwhile, the default mode network is activated during rest and is involved in autobiographical memory. We often see that this network is less active during rest and functionally disrupted among individuals with PTSD," said Dr. Andrew Nicholson, an affiliated scientist at Lawson.

"Neurofeedback helped restore the functional connectivity of both networks to healthier levels," added Nicholson.

The study involved weekly sessions of neurofeedback over 20 weeks. Participants were asked to reduce the intensity of the brain's dominant brain wave - the alpha rhythm. Brain activity was visualized as either a still cartoon or a distorted picture. If the alpha rhythm was successfully reduced, the cartoon started playing or the picture started becoming clearer.

"Participants were not instructed on how to reduce the alpha rhythm. Rather, each individual figured out their own way to do so," noted Dr. Lanius. "For example, individuals reported letting their mind wander, thinking about positive things or concentrating their attention."

The team noted the treatment could have a number of clinical implications following further validation.

"Neurofeedback could offer an accessible and effective treatment option for individuals with PTSD. The treatment is easily scalable for implementation in rural areas and even at home," said Dr. Lanius.

**Chemotherapy**

**Study focuses on finding way to stop chemotherapy from damaging heart** *(New Kerala: 20210128)*

There could be an intervention on the horizon to help prevent heart damage caused by the common chemotherapy drug doxorubicin, new research suggests.

The study is published in the journal Proceedings of the National Academy of Sciences.

Scientists found that this chemo drug, used to treat many types of solid tumours and blood cancers, is able to enter heart cells by hitchhiking on a specific type of protein that functions as a transporter to move a drug from the blood into heart cells.

By introducing another anti-cancer drug in advance of the chemo, the researchers were able to block the transporter protein, effectively stopping the delivery of doxorubicin to those cardiac cells. This added drug, nilotinib, has been previously found to inhibit activation of other, related transport proteins.

The current findings are based on lab experiments in cell cultures and mice. The researchers are continuing studies with hopes to start designing human trials of the drug intervention later in 2021.

"The proposed intervention strategy that we'd like to use in the clinic would be giving nilotinib before a chemotherapy treatment to restrict doxorubicin from accessing the heart," said first author Kevin Huang, who graduated in December from The Ohio State University with a PhD in pharmaceutical sciences. "We have pretty solid preclinical evidence that this intervention strategy might work."

Doxorubicin has long been known for its potential to increase patients' risk for serious heart problems, with symptoms sometimes surfacing decades after chemo, but the mechanisms have been a mystery. The risk is dose-dependent - the more doses a patient receives, the higher the risk for cardiac dysfunction later in life that includes arrhythmia and a reduction in blood pumped with each contraction, a hallmark symptom of congestive heart failure.

Huang worked in the lab of senior study authors Shuiying Hu and Alex Sparreboom, faculty members in pharmaceutics and pharmacology and members of the Ohio State Comprehensive Cancer Center's Translational Therapeutics program. This research and other studies targeting different transport proteins to prevent chemo-related nerve pain were also part of Huang's dissertation.

"Our lab works on the belief that drugs don't naturally or spontaneously diffuse into any cell they would like to. We hypothesize that there are specialized protein channels found on specific cells that will facilitate movement of internal or external compounds into the cell," Huang said.

For this work, the team focused on cardiomyocytes, cells composing the muscle behind the heart contractions that pump blood to the rest of the body. The researchers examined cardiomyocytes that were reprogrammed from skin cells donated by two groups of cancer
patients who had been treated with doxorubicin - some who suffered cardiac dysfunction after chemo, and others who did not.

The scientists found that the gene responsible for production of the transport protein in question, called OCT3, was highly expressed in the cells derived from cancer patients who had experienced heart problems after treatment with doxorubicin.

"We used mouse models and engineered cell models to demonstrate doxorubicin does transport through this protein channel, OCT3," Huang said. "We then looked prospectively into what this means from a therapy perspective."

Blocking OCT3 became the goal once researchers found that genetically modified mice lacking the OCT3 gene were protected from heart damage after receiving doxorubicin. Further studies showed that inhibiting OCT3 did not interfere with doxorubicin's effectiveness against cancer.

Hu and Sparreboom have specialized in a class of drugs called tyrosine kinase inhibitors, which block specific enzymes related to many cell functions. Nilotinib, a chronic myeloid leukemia drug, is a tyrosine kinase inhibitor that is also known to act on OCT3.

Additional experiments showed that cardiac function was preserved in mice that were pretreated with nilotinib before receiving doxorubicin - and the pretreatment did not interfere with doxorubicin's ability to kill cancer cells.

The researchers plan to gather additional supporting evidence before pursuing a Phase 1 clinical trial testing the safety of two components of the proposed drug intervention in humans blocking the function of the OCT3 transporter protein and demonstrating that inhibiting OCT3 in patients treated with doxorubicin protects those patients' hearts from chemo-induced injury.

**Covaxin Vaccine (Hindustan Times: 20210128)**

https://epaper.livehindustan.com/imageview_601766_83934128_4_1_28-01-2021_3_i_1_sf.html
स्वदेशी कोवैक्सीन ब्रिटेन के नए वायरस पर भी प्रभावी

नई दिल्ली | विशेष लेखक

स्वदेशी टीका कोवैक्सीन की ब्रिटेन के नए कोरोना वायरस (प्रकार बी 1.1.7) पर भी कारगर प्रभाव दिखाया गया है। भारतीय मिशन इन्सेंटीव की आवश्यकता की वैश्विक इकाई में किया गया था। जानकारी के बाद में नए कोरोना के नए प्राकृतिक प्रजाति के युगल के ताजा अंक में प्रकाशित हुआ है।

इसमें आक्नेन लेने वाले 38 लोगों में पैदा हुईं एंटीबॉडी का पतीक्षण ब्रिटेन से भारत पहुँचे नए प्रकार पर किया गया। इस प्रकार के संबंध में लेंगे में देखा जाता है कि जो एंटीबॉडीज टीकाकरण के लिए चुके थे, वह नए प्रकार के वायरस से लड़ने में सक्षम हैं। शोध में दर्ज किया गया कि एंटीबॉडीज नए प्रकार के हिस्सों पूरी तरह से कारगर हैं।

देश में 200 केस: देश में इसके 200 केस आए हैं। जनन प्रकार 70% तक ज्यादा संक्रमक है। इसमें 17 वर्षीय से लिए हे। कोवैक्सीन से देश में टॉक्सिकरण शुरू हो पूरा है। नए प्रकार पर इसके असर दर्ज होने से टीका लगा से लोगों को पूरी तरह संरक्षित करेंगे।