



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DA
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Physical distancing

Masks alone may not stop COVID-19 spread without physical distancing Masks alone may not stop COVID-19 spread without physical distancing (The Tribune: 20201223)

<https://www.tribuneindia.com/news/health/masks-alone-may-not-stop-covid-19-spread-without-physical-distancing-188382>

Simply wearing a face mask may not protect you from catching the novel coronavirus, that causes COVID-19, if you are not maintaining physical distancing, according to a study.

The research, published in the journal *Physics of Fluids*, tested how five different types of mask materials affected the spread of droplets that carry the SARS-CoV-2 virus, when we cough or sneeze.

All the material the researchers tested dramatically reduced the number of droplets that were transmitted.

However, enough droplets to potentially cause the viral illness still made it through several of the materials when physical distance was less than six feet, they said.

"A mask definitely helps, but if the people are very close to each other, there is still a chance of spreading or contracting the virus," said Krishna Kota, an associate professor at New Mexico State University in the US.

"It's not just masks that will help. It's both the masks and distancing," Kota added.

The researchers developed a machine that uses an air generator to mimic human coughs and sneezes.

The generator was used to blow tiny liquid particles, like the airborne droplets of sneezes and coughs, through laser sheets in an airtight square tube with a camera.

They blocked the flow of the droplets in the tube with five different types of materials -- a regular cloth, a two-layer cloth mask, a wet two-layer cloth, a surgical mask, and a medical-grade N-95 ventilator.

Each of the masks captured the vast majority of droplets, ranging from the regular cloth mask, which allowed about 3.6 per cent of the droplets to go through, to the N-95 mask, which statistically stopped 100 per cent of the droplets.

The researchers noted that at distances of less than six feet, even those small percentages of droplets can be enough to get someone sick, especially if a person with COVID-19 sneezes or coughs multiple times.

According to the researchers, a single sneeze can carry up to 200 million tiny virus particles, depending on how sick the carrier is.

They noted that even if a mask blocks a huge percentage of those particles, enough could escape to get someone sick if that person is close to the carrier.

"Without a face mask, it is almost certain that many foreign droplets will transfer to the susceptible person," Kota said.

"Wearing a mask will offer substantial, but not complete, protection to a susceptible person by decreasing the number of foreign airborne sneeze and cough droplets that would otherwise enter the person without the mask," he said.

Kota added that people should try to minimise or avoid close face-to-face or frontal human interactions. PTI

Vaccinations

COVID-19 immunity lasts at least 8 months, hope for longevity of vaccinations: Study
The scientists found that antibodies against the virus started to drop off after 20 days post-infection. (The Tribune: 20201223)

<https://www.tribuneindia.com/news/health/covid-19-immunity-lasts-at-least-8-months-hope-for-longevity-of-vaccinations-study-188373>

COVID-19 immunity lasts at least 8 months, hope for longevity of vaccinations: Study
The scientists found that antibodies against the virus started to drop off after 20 days post-infection. Reuters photo.

People who have recovered from the novel coronavirus infection have immune memory to protect against reinfection for at least eight months, according to a new study which provides strong evidence for the likelihood that COVID-19 vaccines will work for long periods.

While earlier studies have shown that antibodies against the coronavirus wane after the first few months of infection, raising concerns that people may lose immunity quickly, the new research, published in the journal *Science Immunology*, puts these concerns to rest.

According to the scientists, including those from Monash University in Australia, specific cells within the immune system called memory B cells, "remembers" infection by the virus, and if re-exposed to the virus, triggers a protective immune response through rapid production of protective antibodies.

In the study, the researchers recruited a cohort of 25 COVID-19 patients and took 36 blood samples from them from Day 4 post-infection to Day 242 post-infection.

The scientists found that antibodies against the virus started to drop off after 20 days post-infection.

[Click here for the latest developments on Covid-19 epidemic](#)

However, they said all patients continued to have memory B cells that recognised one of two components of the virus -- the spike protein which helps the virus enter host cells, and the nucleocapsid proteins.

Based on their analysis, the researchers said these virus-specific memory B cells were stably present as far as eight months after infection.

The scientists believe the findings give hope to the efficacy of any vaccine against the virus and also explains why there have been very few examples of genuine reinfection across the millions of those who have tested positive for the virus globally.

"These results are important because they show, definitively, that patients infected with the COVID-19 virus do in fact retain immunity against the virus and the disease," said study co-author Menno van Zelm, from the Monash University Department of Immunology and Pathology.

"This has been a black cloud hanging over the potential protection that could be provided by any COVID-19 vaccine and gives real hope that, once a vaccine or vaccines are developed, they will provide long-term protection," van Zelm said. PTI

Pollution

**‘Deaths, morbidity from air pollution led to loss of 1.4% of GDP in 2019’
18 pc of total deaths in India attributable to air pollution last year, says scientific paper. (The Tribune: 20201223)**

<https://www.tribuneindia.com/news/health/deaths-morbidity-from-air-pollution-led-to-loss-of-1-4-of-gdp-in-2019-187973>

‘Deaths, morbidity from air pollution led to loss of 1.4% of GDP in 2019’
Traffic moves on a smoggy morning in New Delhi. Reuters file photo

The economic loss due to premature deaths and morbidity from air pollution was Rs 2.6 crore or 1.4 per cent of the GDP in India in 2019, according to a new scientific paper.

It also said that 1.7 million deaths (18 per cent of the total deaths) in the country were attributable to air pollution last year.

According to scientific paper on health and economic impact of air pollution published in Lancet Planetary Health on Tuesday, household air pollution decreased in India resulting in 64 per cent reduction in the death rate attributable to it from 1990 to 2019, whereas the death rate from outdoor ambient air pollution increased during this period by 115 per cent.

The findings highlight that “lost output from deaths and diseases due to air pollution led to a loss of 1.4 per cent of the GDP of the country”.

India has a good economic and development trajectory, which can improve further with the reduction of air pollution, the scientific paper noted.

According to the paper, the economic loss due to air pollution as a percentage of the state GDP was higher in the northern and central India states, with the highest in Uttar Pradesh (2.2 per cent of GDP) and Bihar (2 per cent of GDP).

NITI Aayog member Prof Vinod Paul said the scientific paper presents the latest evidence on air pollution in India, translating the health loss to economic impact.

“India has many ongoing major initiatives to reduce air pollution. This paper provides a robust assessment of the trends and current situation in each state, and highlights that augmenting the existing air pollution control efforts based on the specific situation of each state would be useful.

“Air pollution and its impact is not a matter for the health sector alone, and the solutions lie in a multi-sectoral approach with a common commitment to reducing exposure to toxic air, which is impacting the health and productivity of Indians,” he said.

ICMR Director General Balram Bhargava said various government schemes such as the ‘Pradhan Mantri Ujjwala Yojana’ and ‘Unnat Chulha Abhiyan’ have aided in reducing household air pollution in the country.

Such success encourages us to enhance efforts to reduce outdoor air pollution as well, he said.

“The findings in this analysis show that while 40 per cent of the disease burden due to air pollution is from lung diseases, the remaining 60 per cent is from ischemic heart disease, stroke, diabetes and neonatal deaths related to preterm birth, thus highlighting the broad ranging impact of air pollution on human health,” Bhargava added. PTI

WHO

WHO calls meeting on new virus variant, European head says The Geneva-based body has cautioned against major alarm over the variant (The Tribune: 20201223)

<https://www.tribuneindia.com/news/health/who-calls-meeting-on-new-virus-variant-european-head-says-187944>

WHO calls meeting on new virus variant, European head says

The World Health Organization (WHO) will convene a meeting of members to discuss strategies to counter a new, more infectious coronavirus strain that emerged in Britain

The World Health Organization (WHO) will convene a meeting of members to discuss strategies to counter a new, more infectious coronavirus strain that emerged in Britain, its European chief said on Tuesday.

He did not give a date for the meeting.

"Limiting travel to contain spread is prudent until we have better info. Supply chains for essential goods & essential travel should remain possible," WHO Regional Director Hans Kluge said on Twitter, urging increased preventive measures.

The Geneva-based body has cautioned against major alarm over the variant, saying it was a normal part of a pandemic's evolution and praising Britain for detecting it.

In a statement on Tuesday, the WHO repeated that there was not yet enough information to determine whether the new variant could affect vaccine efficacy, saying researching was ongoing.—Reuters

Strain infectious

Strain infectious, but not more lethal: Govt (Hindustan Times: 20201223)

<https://epaper.hindustantimes.com/Home/ArticleView>

A security official at Delhi airport on Tuesday. Twenty-one flyers in 5 cities tested positive for Covid-19 after arriving from UK. AFP

New Delhi : The new variant of the coronavirus is more transmissible but does not appear to lead to higher mortality or hospitalisation and is unlikely to make the current class of vaccines

ineffective, top Indian government officials said on Tuesday, citing the information available till now on a mutation that was first spotted in the UK and has since triggered a global alarm.

Union health secretary Rajesh Bhushan and Niti Aayog member (Health) VK Paul said India has stepped up genomic surveillance in order to detect if anyone has the new mutation in the country, with a particular focus on people who arrived from Britain in the past month. At least 21 people in five cities, including five at Delhi airport, tested positive for Covid-19 after landing from the UK on Tuesday. Their samples will now be sent for genomic sequencing.

To be sure, information is still being gleaned about the new mutation and any conclusion, either on its effects or its possible resistance to vaccines, cannot be made with any certainty at this stage.

“The new strain has 17 changes and one of them, N501Y, is of the area which instructs the spike protein, the part that the viruses uses to enter cells. Because of this, it appears that the strain’s tendency to enter cells is higher... Does this make the disease severe? It does not seem to. Neither does it appear to increase the chances of death or hospitalisation,” Paul said.

But, citing data discussions with experts, Paul said the development was worrying and that the government is vigilant since the new variant has a tendency to infect more people. Accordingly, the government will expedite genetic sequencing of all virus samples received at Indian Council of Medical Research (ICMR) and Department of Biotechnology (DBT) laboratories.

“Is it a reason for panic? No. Is it something we should be vigilant about? Certainly,” he said, while adding that current evidence also suggests that the vaccines that have been developed and are being tested are unlikely to become obsolete due to these mutations. “All vaccines developed till now will work for this variant too.”

The Union government also announced a new set of guidelines to trace and survey people who returned from the UK in the past month, advising states to separately quarantine them at institutional facilities if any of them develop symptoms. All such symptomatic people will be tested and if positive, the samples will be sent to genetic analysis to check for the B.1.1.7, the strain found in the UK.

The same genetic sequencing protocol will apply for samples of those who tested positive upon arrival on Tuesday, the last day for flights to and from UK before an embargo comes into force till December 31. In all, 22 people were found with the virus in five cities: eight (including a crew member) in Amritsar, six in Delhi, four in Ahmedabad, three in Kolkata and one in Chennai. According to the protocol, people sitting in the same row and up to three rows in front or behind any of the infected patients will be traced and quarantined with a test 5-10 days later.

Experts said that the new variant may already be in India. “The possibility that it hasn’t arrived in India is low,” said Dr Anurag Agarwal, director of the Institute of Genomics and Integrative Biology (IGIB), which is one of the labs that has been sequencing Sars-CoV-2 genomes. He explained that the virus has been found to be more transmissible but the transmission can happen only if people are not wearing masks. If precautions are not followed, the new variant may lead to super-spreading events, he added. “It is likely that the new variant may have already come to India, you will find it only if you are looking for it. This is the reason why we need to scale up the number of genomic sequencing that we are doing. India has the second highest number of Covid-19 cases in the world and it is likely that some variant like it might

have generated within the country too,” said Dr Shahid Jameel, virologist and director of Trivedi School of Biosciences at Ashoka University.

Bhushan also spoke on the infection trends in India during Tuesday’s briefing. “Countries like the US, Brazil, the UK, Russia and Germany are showing new peaks in Covid cases. In comparison, India’s trajectory has shown a sustained decline in Covid-19 cases since mid-September,” he said. Bhushan on Monday wrote to the civil aviation ministry, citing recommendations from the group of experts who reviewed the information released from the UK.

Experts from the Covid-19 Genomics UK Consortium on Saturday said the new variant is significant because it now “accounts for an increasing proportion of cases in parts of England”, “has an unusually large number of genetic changes, particularly in the spike protein”, and the mutations “have potential biological effects”. Shortly after, UK PM Boris Johnson said the variant could be up to 70% more transmissible.

Covid-19: What you need to know today (Hindustan Times: 20201223)

<https://epaper.hindustantimes.com/Home/ArticleView>

The fact that a handful of people who flew into various parts of India from the UK have tested positive for the coronavirus is cause for alarm simply because these infections were discovered the instant India tightened its screening process for inbound fliers. It’s very likely that for the past seven months, ever since India restarted flights to and from other countries through so-called travel bubbles, there has been a steady trickle of infected people into (and also out of) the country. The screening process was tightened following panic over the new strain of the Sars-CoV-2 virus identified in the UK (as far back as September, although it is only in recent weeks that it has hit the headlines after becoming the dominant strain in the country, and causing a surge in infections). UK officials have said the new strain is 70% more contagious (or infective) than the old one. They also say that in many parts of the country, it has become the dominant strain. That would mean at least some of the people identified as Covid-positive in Monday’s screening at airports could potentially be carrying the new strain.

Indian health officials insisted at a briefing on Tuesday that the new strain hasn’t been spotted in India, but this is one of those statements that is economical with the truth. The reality is that India does not sequence enough viral genomes for this to be said with any amount of certainty, but in all the briefings (and it’s usually by the same worthies who are in charge of India’s Covid response) I’ve listened in on, I have never heard the terms “we don’t know” or “we can’t say for sure” ever being used. Indeed, what they lack in knowledge, these people usually make up for with certitude. The correct answer, for instance, to a query on whether the new strain is in India would be: it hasn’t been identified in our tests, but we do not sequence enough viral genomes to say for sure; we are now increasing the volume of genomes we sequence. That wasn’t so difficult, now, was it? As I wrote in Tuesday’s column (Dispatch 230), given that the new strain has been around since September, and flights have been operating between various airports in the two countries, there is every likelihood that the strain may already be in India – but we do not know for sure.

In Tuesday's column, I wrote about how the UK had caught a lucky break – one of the commonly used RT-PCR tests showed only pieces of two genes in the result, as compared to the three it usually does. One of the new strain's 17 known mutations was responsible for this. The Reverse Transcription Polymerase Chain Reaction or RT-PCR test is considered the gold standard when it comes to diagnostic tests for Covid. It identifies the viral RNA (ribonucleic acid, the genetic material) by converting it into complementary DNA, which it does using an enzyme called reverse transcriptase. Then a series of chemical reactions are used to amplify the complementary DNA sections. The quantum of viral DNA is then measured using fluorescent markers. The test in question in the UK was calibrated to check for three different RNA targets – and because of the mutation, it found only two. Ergo, the country didn't really have to keep sequencing viral genomes to figure out whether the infection was caused by the new strain – if a test showed only pieces of two genes in the result, it indicated the virus was the new strain.

Apart from aggressively sequencing more viral genomes, India would do well to collect more information – for instance, every RT-PCR test also measures viral loads – from the molecular tests it conducts (the rapid antigen tests, apart from being unreliable, aren't of much use in this context) rather than simply treating the output as a binary yes/no. Indeed, had a system to do this been in place, health officials here might have been in a better position to answer the original question: is the new strain in India?

Pandemic resilience

Pandemic resilience: On call for a new health law post-COVID-19(Hindustan Times: 20201223)

<https://www.thehindu.com/opinion/editorial/pandemic-resilience-the-hindu-editorial-on-call-for-a-new-health-law-post-covid-19/article33397152.ece>

Parliamentary panel's call for a new health law post-COVID-19 is a kernel for reform
The report of the parliamentary Standing Committee on Home Affairs calling for a comprehensive Public Health Act, as a response to the extreme stresses caused by COVID-19, is a welcome call to reform a fragmented health system. When the pandemic arrived, National Health Profile 2019 data showed that there were an estimated 0.55 government hospital beds for 1,000 people. Prolonged underinvestment in public health infrastructure thus left millions seeking help from a highly commercialised private sector with little regulatory oversight; the situation was even worse in rural areas, where care facilities are weaker, and urban workers fled to their villages, afraid of the cost of falling sick in cities. Acknowledging these distortions, and the inadequacy of existing legal frameworks, the panel has called for an omnibus law that will curb profiteering during such crises and provide robust cashless health insurance. Its indictment of the feverish commerce surrounding health-care provision, however, can serve a larger purpose if it covers overall system reform, addressing the structural asymmetry created by misguided policies. India has committed itself to covenants such as the Sustainable

Development Goals, but continues to evade making the right to health a full legal and justiciable right under the National Health Policy.

Among the committee's observations is the absence of insurance cover for many and oversight on hospitals to ensure that patients are not turned away in a crisis such as COVID-19. While the panel is right to view this as a breach of trust, one of the pandemic's impacts has been a staggering rise in premiums, especially for senior citizens, of even up to 25% of the insured value. What is more, the insurance regulator, IRDAI, set 65 as the maximum age of entry for a standard policy earlier this year, affecting older uninsured citizens. Such age limits must be fully removed. The answer to creating an equitable framework lies in a tax-funded system, with the government being the single and sole payer to care providers. This is a long-pending recommendation from the erstwhile Planning Commission, and should be part of any reform. The government, as the single-payer if not sole care provider at present, would be better able to resist commercial pressures in determining costs. This is equally applicable for central procurement of essential drugs, which can then be distributed free. Legal reform must provide for a time-bound transition to universal state-provided health services under a rights-based, non-exclusionary framework, with States implementing it. Private arrangements can be an option. COVID-19 has exposed the dangers of excessive reliance on private tertiary care. The corrective lies in raising public spending to the promised 2.5% of GDP on public facilities that are universally accessible.

Covid-19 (The Asian Age: 20201223)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=15299774>

Turn Covid-19 into an opportunity: Khanna

AGE CORRESPONDENT
NEW DELHI, DEC. 22

During the Covid-19 era, one of the health professionals amongst many others, who have come out shining, is Dr. Sunali Khanna. Her keen interest in public health addresses issues that need to be dealt with. In the wake of Covid-19, Dr. Khanna feels public health infrastructure of rural areas should be focussed upon more, along with places where marginalised people live, old-age homes, homes for differently-abled and orphanages.

Addressing a panel discussion of Covid-19 challenges and opportunities, Dr Khanna said while Covid-19 has been the most serious challenge of 2020, it should be converted into an opportunity. Infrastructure expansion, its optimal utilisation, and the functional challenges should be focussed upon, urged Dr

DR SUNALI Khanna feels that in the wake of Covid-19, public health infrastructure of rural areas should be focussed upon more, along with places where marginalised people live, old-age homes, homes for differently-abled and orphanages.

Khanna, vice president of Indian Academy of Oral Medicine Radiology.

Dr Khanna is the youngest person to chair the 12th Asian Congress of Oral & Maxillofacial Radiology as president in 2018 in Mumbai. Being a keen environmental health scientist and activist, who was awarded PhD by Maharashtra University of Health Sciences, Dr Khanna's research highlights importance of environmental health issues in the public sphere. She is the convener of



Dr. Sunali Khanna

International Conference on Environmental Health Research held in 2011, 2012, 2014, 2015, 2016, 2018 and 2019.

The conferences attracted over 450 delegates and were aimed at development of environment health indicators to establish better links and improvement in the cumulative burden of environmental change and its impact on society. It also focused on development of approaches to integrating public concerns and precautionary principles into public policy on

health. She has conducted surveys on tobacco related diseases and cessation practices. She has co-authored HIV/AIDS manual for health professionals in association with Mumbai District AIDS Control Society which is a big step towards developing community awareness particularly among doctors in interior and remote areas.

As we see certain gaps in the health apparatus in the country, Dr. Khanna has been arguing that presently it is the right time to fill those gaps so we are well-equipped in non-Covid times too. Apart from public health, she is an eminent educationist serving as a faculty member of the Maharashtra University of Health Sciences.

She teaches and also undertakes research in the areas of oral medicine, maxillofacial radiology, trace elements and oral cancer at Nair

Hospital Dental College, a premier institute in Mumbai.

During the earlier years, she won academic distinctions and was recognised by the International College of Dentists. She has also contributed towards development of curriculum for under and post-graduate dental surgery courses. She has been instrumental in designing training modules and suggesting reforms in higher education especially the prevailing examination system. She is on the expert panel of University Grants Commission.

Dr Khanna became the first and only candidate to qualify the D.N.B (Diplomate of National Board Examination) in Oral Medicine & Radiology till now. Dr Khanna has worked extensively towards the healthcare of elderly and marginalised sections of society.

UK virus strain a 'Super-Spreader' has 70

UK virus strain a 'Super-Spreader' has 70 pc increased transmissibility rate: Dr Paul, NITI Aayog (New Kerala: 20201223)

<https://www.newkerala.com/news/2020/220962.htm>

By Priyanka Sharma, New Delhi, December 22: At a time when India is witnessing a decline in the active coronavirus cases, a new mutation of Covid-19 virus strain in United Kingdom has become a "Super-Spreader" with 70 per cent increased transmissibility rate. However, this mutated and more aggressive strain of the novel coronavirus has not been found in India so far, Dr VK Paul, Member (Health), NITI Aayog said on Tuesday.

According to the Union Health Ministry data, India's active caseload has fallen below 3 lakh (2,92,518) as of Tuesday, the lowest after 163 days.

Addressing a press conference on COVID19 updates, Dr VK Paul, Member (Health), NITI Aayog said "We are in good position and we have to keep this momentum. It will help in suppressing the virus by remaining vigilant. In UK, new mutation of virus has been seen."

Dr Paul said, "We talked to UK research community and we came to know that the mutation has enhanced the transmissibility rate of the virus. It is being said that 70 per cent transmissibility rate has increased. We can call them that the virus has become super-spreader."

"This virus mutation is not affecting the severity of the disease, neither the case fatality nor the hospitalization rate. The new strain or mutation of coronavirus seen in the United Kingdom has not been seen in India, so far. There is no cause for concern, no need to panic. As for now, we need to stay vigilant," he added

Explaining the virus mutation, Dr Paul said "Mutation means that change in RNA of the virus. The change in the virus is called drift. It has no significance. This behaviour is seen in many virus including this virus."

"Around 17 changes are seen in the virus and one change --N501Y is responsible for the virus by which it enter in human cells. It increases the tendency of the virus to enter in our body. Only tendency to infect more people has increased. It is cause for concern. It is an adverse development in UK," Dr Paul added.

Informing about the action taken up the Central government, the NITI Aayog official said, "The government is looking into it. We have robust laboratories and we are studying the genetic structure of thousands of viruses. We have not found the mutation of the virus seen in UK. Since, people are travelling amid pandemic and it was found in Australia and some countries

in Europe and hence we have to remain vigilant. The new strain or mutation of Coronavirus seen in the United Kingdom has not been seen in India, so far."

In the wake of this UK virus mutation, the Central government on Monday took a slew of measures as a matter of abundant precaution.

"Passengers travelling to and from UK have been stopped temporarily till 31 December. Since yesterday, we have started genetic sequencing of The samples which have come in our laboratory recently. We are doing it in a fast speed," he said.

"The passengers who have come to India from UK, we are tracing them and checking their health condition and doing their Covid-19 tests. If they found positive for virus, we take their specimen and culture their virus and do genometric sequences," he added.

"All the incoming passengers are going through RT-PCR tests. We follow the said procedure for them. If anyone found positive we will test the virus and do the genometric sequencing," he said.

Pointing out that virus mutation cannot affect the development of Covid-19 vaccine, Dr Paul noted "As of now, the new strain of COVID-19 in UK has no impact on the potential of the emerging vaccines being developed in our country and are available in other countries."

"Based on our discussions with scientists in UK, colleagues in World Health Organisation (WHO) and with our deep assessment we can say that there is no need to panic. There is no change in the procedure and guidelines of treatment due to this mutation," said Dr Paul adding that people need to be more vigilant and a win the COVID-19 pandemic.

Brain cell

Brain cell that can help track distance discovered (New Kerala: 20201223)

<https://www.newkerala.com/news/2020/220939.htm>

: Scientists have discovered that there is a type of brain cell that can track how far we have travelled and remember where things are, which are added to our memory map of the places we have been.

The existence of GPS-like brain cells, which can store maps of the places we've been, like our kitchen or holiday destination, was already widely known, but this discovery shows there is also a type of brain cell sensitive to the distance and direction of objects that can store their locations on these maps.

The findings, detailing these cells called vector trace cells (VTC), were published in the journal Nature Neuroscience.

"The discovery of vector trace cells is particularly important as the area of the brain they are found in is one of the first to be attacked by brain disorders such as Alzheimer's disease, which could explain why a common symptom and key early 'warning sign' is the losing or misplacement of objects," said lead researcher Steven Poulter from Durham University in Britain.

According to Colin Lever from Durham University, these cells appear to connect to creative brain networks which help us to plan our actions and imagine complex scenarios in our mind's eye.

"Vector trace cells acting together likely allow us to recreate the spatial relationships between ourselves and objects, and between the objects in a scene, even when those objects are not directly visible to us," Lever said.

Full blood count

Full blood count can predict disease severity of Covid patients (New Kerala: 20201223)

<https://www.newkerala.com/news/2020/220921.htm>

A full blood count of Covid-19 patients predicts fairly accurately whether the infection will have a complicated course or not, says a new study.

Such predictions can make it easier for healthcare providers to estimate the expected clinical picture.

This study, conducted in eleven hospitals, was published in the journal eLife.

"By using certain techniques, the character of certain blood cells can be better determined and by using these new techniques, we have been able to develop a reliable prognostic score," said principal investigator Andre van der Ven of Radboud University Medical Center in the Netherlands.

"This score gives a good insight into whether a serious course of events can be expected and can help healthcare professionals to make treatment decisions".

In patients presenting to hospitals with a Covid-19 infection, full blood count analysis (hemocytometry) are commonly performed at the emergency department and during hospitalisation.

Covid-19 is accompanied by specific changes in the circulating blood cells that are analysed by a full blood count.

These changes in the blood cells, especially those that can be identified using new techniques, were used to create an algorithm with a predictive value.

The developed algorithm appears to predict the course of Covid-19 better than the value of the individual blood cells, as used so far.

The reliability increases to 93 per cent after six days, said the study.

Using data generated by full blood count measurements, the researchers wanted to know if it is possible to predict whether a hospitalised Covid-19 patient will become seriously ill and needs treatment at the intensive care.

For this purpose, they examined the data of 982 adult patients in eleven different hospitals across Europe.

And this turned out to be possible specific changes in the circulating blood cells of Covid-19 patients proved to be of use as indicators whether a serious course of events was expected.

New laboratory techniques make it possible to detect whether immune cells in the blood are activated and it turned out that especially these activated cells were more present of Covid-19 patients with a severe course, including during the early course of the disease.

In a second study population the researchers were able to confirm the value of the prognostic score.

New Viris (Hindustan: 20201223)

https://epaper.livehindustan.com/imageview_529774_87085044_4_1_23-12-2020_3_i_1_sf.html

नीति आयोग के डॉ. वीके पॉल बोले- यह संक्रामक पर घातक नहीं

नए वायरस का देश में कोई मामला नहीं

नई दिल्ली | विशेष संवाददाता

केंद्र सरकार ने मंगलवार को कहा कि ब्रिटेन में पाए गए कोरोना के नए प्रकार 'सार्सकोविड-2' का भारत में अभी तक कोई मामला सामने नहीं आया है। सरकार पूरी तरह से सतर्कता बरत रही है। नीति आयोग के सदस्य डॉ. वीके पॉल ने कहा कि कोरोना का यह नया प्रकार ज्यादा संक्रामक है लेकिन घातक नहीं।

दो से चार संक्रमित: केंद्रीय स्वास्थ्य सचिव राजेश भूषण एवं डॉ. पॉल ने प्रेस कॉन्फ्रेंस में कहा कि इस वायरस में कुल 17 बदलाव दर्ज किए गए हैं। स्पाइक प्रोटीन में एक बड़ा बदलाव है, जिससे यह 70 फीसदी तक ज्यादा संक्रामक हो गया है। पहले दो संक्रमितों से तीन लोगों को इसके फैलने की आशंका थी लेकिन अब चार को फैलने की आशंका हो गई है। बाकी अन्य बदलाव छोटे-छोटे हैं।

बदलाव असरहीन: डॉ. पॉल ने कहा कि एनफ्लुएंजा के वायरस में निरंतर बदलाव होते रहते हैं। भारत में जो वायरस है, उसमें भी कई बदलाव हैं लेकिन वे असरहीन हैं। उन्होंने कहा कि अब तक जो जानकारियां मिली हैं, उनसे स्पष्ट है कि इससे न तो कोरोना की बीमारी ज्यादा गंभीर होती है और न ही इसमें मृत्यु का खतरा ज्यादा है।

उधर, स्वास्थ्य सचिव राजेश भूषण ने कहा कि हमारी अब तक की समझ के अनुसार, ब्रिटेन में सामने आए सार्स-सीओवी-2 के नए प्रकार का विकसित



अमृतसर हवाई अड्डे पर मंगलवार को यात्रियों का नमूना लेते स्वास्थ्यकर्मी। • एएफपी

ब्रिटेन से लौटे 21 यात्री कोरोना संक्रमित मिले

ब्रिटेन से लौटे 21 यात्रियों में संक्रमण की पुष्टि हुई है पर इनमें नए प्रकार का वायरस है या नहीं, इसकी पुष्टि नहीं हुई है। छह यात्री दिल्ली एयरपोर्ट, चार अहमदाबाद व अन्य कोलकाता, अमृतसर, चेन्नई में मिले। इनके सैंपल की जीनोम जांच की जाएगी।

'वायरस बेकाबू नहीं'

विश्व स्वास्थ्य संगठन के आपातकालीन मामलों के प्रमुख माइक रायन ने कहा कि महामारी के फैलाव के दौरान नए प्रकार मिलना सामान्य बात है, और यह बेकाबू नहीं है। यह ज्यादा संक्रामक है लेकिन इस बात के कोई सबूत नहीं कि यह ज्यादा घातक भी है।

यात्रियों की जांच, संपर्क में आए लोगों की भी तलाश

25 नवंबर के बाद से अब तक आए लोगों को ढूंढा जाएगा, जरूरत हुई तो जांच होगी। 21 से 23 दिसंबर के बीच ब्रिटेन से आए लोगों में अगर संक्रमण मिला तो उन्हें वायरस के नए प्रकार की जांच करानी होगी। अलग वार्ड में भी रखा जाएगा।

किए जा रहे टीकों के प्रभावी होने पर कोई असर नहीं होगा।

आपात मंजूरी पर नियामक करेगा निर्णय: कोरोना टीकों को मंजूरी देने के सवाल पर डॉ. पॉल ने कहा, फाइजर समेत तीन कंपनियों से दवा नियामक ने

नियमित प्रक्रिया के तहत अतिरिक्त जानकारियां मांगी हैं। फाइजर ने अभी जानकारी नहीं दी है लेकिन एक कंपनी ने आंकड़े दिए हैं। नियामक इस बारे में उचित समय पर उचित निर्णय करेगा।

➤ ज्यादा संक्रामक पेज 09