Long-term care for recovered COVID-19 patients

Md Ekhtear Mahmud

The COVID-19 is an ongoing pandemic of coronavirus disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As per the COVID-19 dashboard by the Centre for Systems Science and Engineering (CSSE) at Johns Hopkins University, as of 20 June 2020, above 8,685,046 cases have been reported in 188 countries and territories, resulting in more than 460,506 deaths; more than 4,270,000 people have recovered.

SARS-CoV-2 is a novel infectious agent and recovery from it has a steep learning curve since patients who have survived the COVID-19 infection continue to experience feelings of fatigue, shortness of breath and reduced exercise tolerance.

Small-scale studies conducted in Hong Kong and Wuhan, China, show that survivors face poorer functioning in their lungs, heart and liver.

The hospital authority of Hong Kong has been observing a group of COVID-19 patients for up to two months since they were released. They found about 50% of the 20 survivors had lung function below the normal range. Moreover, a study of blood samples from 25 patients, who recovered from COVID-19 in Wuhan, found that they had not fully recovered normal functioning regardless of the severity of their coronavirus symptoms.

According to the doctors at the Cedars-Sinai Medical Centre in Los Angeles, chronic cardiac complications could arise in patients even after recovery as a result of persistent inflammation.

Since there is not sufficient data regarding the after-effects of novel coronavirus infection, for clues on how COVID-19 may leave its mark, doctors and researchers are looking to the experience of Severe Acute Respiratory Syndrome (SARS) which is part of the same family as the new coronavirus. Some survivors of the SARS suffered long-term effects years after they first got the disease.

Researchers in China analysed 25 SARS patients 12 years after they contracted the virus, contrasting their results with a control group not infected with SARS. They found that more than 50% of the recovered patients suffered another lung infection since their session with SARS and also had higher cholesterol levels. Also, half the patients had at least five colds in the previous year — a characteristic no one in the control group shared.

These data proved that the recovered SARS patients had a poor quality of life 12 years after recovery, and were susceptible to inflammation, tumours, glucose and lipid metabolic disorders as researchers wrote. A similar scenario might be seen in the case of COVID-19 recovered patients if precautionary measures are not taken.

Many experts suggest that breathing exercises can probably be advised to COVID-19 recovered patients in the hope of producing a short term benefit in the improvement of their breathing. As for nutritional support, consumption of fruits and vegetables every day should be advised, along with increased intake of high-quality protein to provide resources for the repair of muscles which will have been challenged considerably during the COVID-19 symptoms.

To improve the patient's respiratory function, termination of smoking should be encouraged.

To improve mental health conditions, COVID-19 recovered patients should be advised to actively engage with mental health services, whether directly or via home-based approaches.

Additionally, a person just recovered should continue with the hygiene practices undertaken while s/he was in quarantine. Distance must be maintained from people around and immediate mingling is not advisable.

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INITIATIVE

AMADER PROCHESTA: Creating awareness on COVID-19 and Diabetes

A project titled '*Amader Prochesta*' was launched recently in the capital to create social awareness on COVID-19 and diabetes, says a press release. The project will help healthcare professionals in identifying the unmet needs in diabetes management for patients, who are suffering from COVID-19, and the preparedness required in the healthcare system.

The project is a joint initiative of the Diabetic Association of Bangladesh (BADAS), Non-Communicable Diseases Control (NCDC) Programme of Directorate General of Health Services (DGHS), Novo Nordisk and Japan International Cooperation Agency (JICA).

A guideline on 'COVID-19 and diabetes for healthcare professional' has been prepared and published and a dedicated website: www.diabetes-covid19.org has been introduced under this project.

200,000 people will be tested for random blood sugar, and educational materials, videos, leaflets, and posters have been prepared and distributed on the prevention of COVID-19 and diabetes.

Professor A K Azad Khan, President of BADAS, said, "Diabetes patients are at higher risk and they need to be very careful amidst this pandemic and social awareness is the key to prevent this deadly disease including other non communicable diseases (NCDs)."

"This project is an opportunity for Novo Nordisk to demonstrate our social responsibility and commitment to patients and the communities we operate in," said Dr Mihail Briciu, Managing Director of Novo Nordisk.

The new platform will be used effectively to protect health of patients living with diabetes and hypertension, said Yasuhiro Kawazoe, Senior Representative of JICA.

HEALTH *bulletin*

COVID-19: steroid lowered mortality and potential drug-drug interaction

Low-dose dexamethasone is associated with reduced mortality risk among patients with severe COVID-19, making it the first drug to show such an effect, according to a statement by trial investigators at the University of Oxford. Over 6,000 hospitalised patients were randomised to receive either dexamethasone (6 mg daily) or usual care for 10 days.

Dexamethasone was associated with significantly lower risk for death among ventilated patients (rate ratio, 0.65) and other patients receiving oxygen (RR, 0.80), compared with those given usual care. Patients who did not require respiratory support did not see a benefit. The authors estimate that eight ventilated patients or 25 patients requiring only oxygen would need to be treated with dexamethasone to prevent one death. The results have not been published in a journal yet.

The U.S. Food and Drug Administration (FDA) is warning that remdesivir should not be used alongside hydroxychloroquine or chloroquine as it may result in lower antiviral activity for remdesivir. The announcement was based on lab studies, but the interaction has not been observed in the clinical setting. The FDA recently pulled the emergency use authorisation for hydroxychloroquine and chloroquine for COVID-19.

Diabetes care during COVID-19

Dr Pronab Choudhury

People with diabetes are not more likely to get COVID-19 than the general population. The risk of getting very sick from COVID-19 is likely to be lower if diabetes is well-managed.

COVID-19 is usually a mild disease and around 98% of people affected survive. Most cases (80%) are mild (showing only minimal flu-like symptoms) and people can recover at home. Some cases (around 14%) are severe and very few (around 5%) can result in critical illness. Some people have no symptoms or only mild symptoms of a common cold. In others, COVID-19 can lead to serious problems, like pneumonia or even death. This is more common in people who have other health problems, those with cardiovascular disease, chronic lung disease and hypertension. People with diabetes are among those high-risk categories that can have serious illness if they get the virus.

Everyone with diabetes, including those with type 1, type 2 and gestational (diabetes in pregnancy), is at risk of developing a severe illness if they get coronavirus, but the way it affects can vary from person to person. So, when you have diabetes, being ill can make your blood sugar go all over the place. Your body tries to fight the illness by releasing stored glucose (sugar) into your bloodstream to give you energy. But your body cannot produce insulin to cope with this, so your blood sugars rise. Your body is working overtime to fight the illness, making it harder to manage your diabetes (high sugar). This means you are more at risk of having serious blood sugar highs and lows, as well as longer-term problems with your eyes, feet and other areas of your body.

It is recommended that people with diabetes plan ahead of time what to do before they get ill. This includes having the contact information of their doctor at hand and making sure to have an adequate stock of medications (tablets and/or insulin, or both) and supplies (as glucometer) for monitoring blood glucose at home, so that they do not need to leave the house if they fall ill. Diabetic patients should practice the 'sick day rules' recommended for any stressful situation to improve their diabetes decompensation. Sick day rules for people with diabetes include keeping hydrated, monitoring blood glucose and temperature, and if you are on insulin, also monitoring ketone bodies and follow the doctor's recommendations.

Finally, in response to the COVID-19, governments in many countries including Bangladesh have restricted the movement of their citizens, confining them to their homes. Regular physical activity is of great benefit to the general population and even more for people living with diabetes. Daily light exercise is recommended at home rather than going outside.

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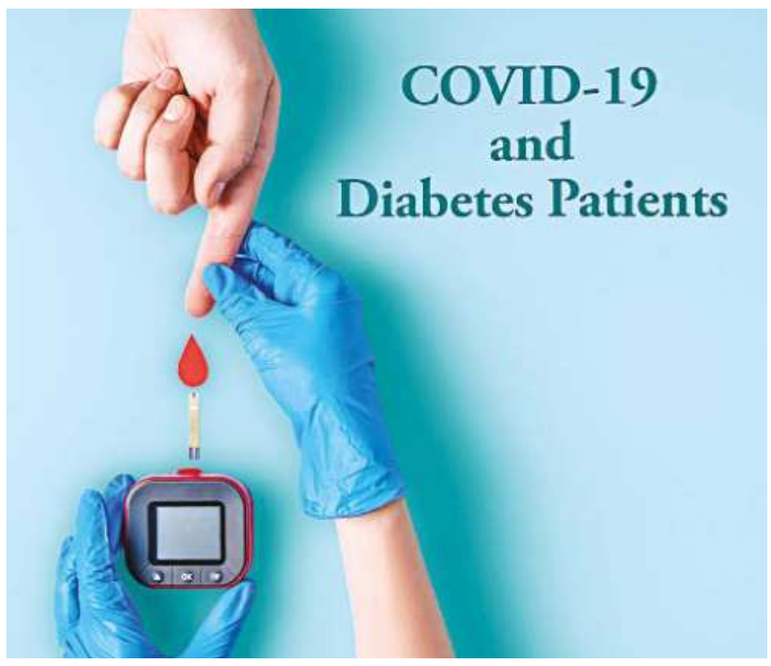

Refugee camps vulnerable to COVID-19 outbreaks

A COVID-19 outbreak in a refugee settlement will likely overwhelm the available healthcare capacity and infrastructure and spread through nearly the entire settlement population if left unchecked, according to a new study published recently in PLOS Medicine by Paul Spiegel of Johns Hopkins University, United States, and colleagues.

Spiegel and colleagues used a dynamic model of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission to simulate how a COVID-19 outbreak could spread through a such a setting, the Kutupalong-Balukhali Expansion Site in the Cox's Bazar district of Bangladesh. Approximately 600,000 Rohingya refugees from Myanmar reside at the settlement.

The researchers simulated high, moderate, and low transmission scenarios and estimated the hospitalisations, deaths, and healthcare needs expected, adjusting for the age distribution of the population at the Kutupalong-Balukhali. The model predicts the number of people infected in the first year will reach 421,500 (95% PI, 376,300–463,500), 546,800 (95% PI, 499,300–567,000), and 589,800 (95% PI, 578,800–595,600) in the low, moderate, and high transmission scenarios, respectively, should no effective interventions to prevent spread of the virus be put into place.

Spiegel and colleagues estimate the hospitalisation needs would exceed the current capacity 55–136 days after introduction, and the outbreak would lead to 2,040 (95% PI, 1,660–2,500), 2,650 (95% PI, 2,030–3,380), and 2,880 (95% PI, 2,090–3,830) deaths in the three scenarios.

The spread of disease through the densely populated refugee settlement is likely to be faster, not slower, than in populations with easier access to the tools (social distancing, basic hygiene, contact tracing and isolation) used to limit spread of disease. The authors emphasise that in this setting, innovative responses and intervention from health agencies and local governments will be necessary to quell the spread and treat the infected population.

/StarHealthBD