Delirium a key sign of COVID-19 in frail, older people
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A new analysis of data from researchers at King's College London using information from the COVID Symptom Study app and patients admitted to St Thomas' Hospital in London, has shown that delirium—a state of acute confusion associated with a higher risk of serious illness and death—is a key symptom of COVID-19 in frail, older people.

The findings, published in the journal *Age and Ageing*, highlight that doctors and carers should be aware of delirium as a possible early warning sign of COVID-19 in the elderly, even in the absence of more typical symptoms such as cough or fever.

Led by clinical fellow and geriatrician Dr. Rose Penfold at King's College London, the researchers analyzed data from two groups of older people aged 65 or over from March through May. The first group included 322 patients admitted to hospital with COVID-19 who had tested positive for COVID-19, while the second comprised 535 users of the COVID Symptom Study app who reported having had a positive test result.

They found that older adults admitted to hospital who were classified as frail according to a standard scale were more likely to have had delirium as one of their symptoms than people of the same age who were not classed as frail. Delirium, along with tiredness and breathlessness, were also more common in frailer users of the COVID Symptom Study app with COVID-19, compared with fitter people of the same age.

A third of app users experiencing delirium did not report suffering the 'classic' COVID-19 symptoms of cough and fever, while delirium was the only symptom for around one in five (18.9%) of hospitalized patients.

Fraility in the group of hospitalized patients was measured using the Clinical Frailty Scale (CFS) test, which is administered by a doctor. COVID Symptom Study App users were asked to complete a short questionnaire asking about their health, which is comparable to the CFS.

This is the first study showing that delirium is a likely symptom of COVID-19 in frail older adults, although the precise biological connection between the two conditions still needs to be understood. The findings also highlight the need for systematic assessment of frailty for older people, along with awareness and screening for delirium for this vulnerable population in hospitals, care homes and the community.

Dr. Rose Penfold from King's College London said: "Older, frailer people are at greater risk from COVID-19 than those who are fitter, and our results show that delirium is a key symptom in this group. Doctors and carers should watch out for any changes in mental state in elderly people, such as confusion or strange behavior, and be alert to the fact that this could be an early sign of coronavirus infection."

Dr. Claire Steves from King's College London said: "The past six months have shown us that COVID-19 can spread catastrophically through care
homes. Knowing that delirium is a symptom in frail, elderly people will help families and carers spot the signs earlier of COVID-19 and act appropriately and put in place infection control measures such as isolation, increased hygiene and personal protective equipment to protect this highly vulnerable group."

Professor Tim Spector, Professor of Genetic Epidemiology at King's College London and COVID Symptom Study lead, said: "In April we upgraded the COVID Symptom Study app to allow users to log health reports on behalf of friends and family who aren't able to access the app. This significantly increased the number of older people in the study, providing vital insights. We're hugely grateful to all our users and urge everyone to download the app and log their health and that of their loved ones on a daily basis as we move towards the winter months."


Provided by King's College London