Children with cystic fibrosis suffer mild illness from Covid-19

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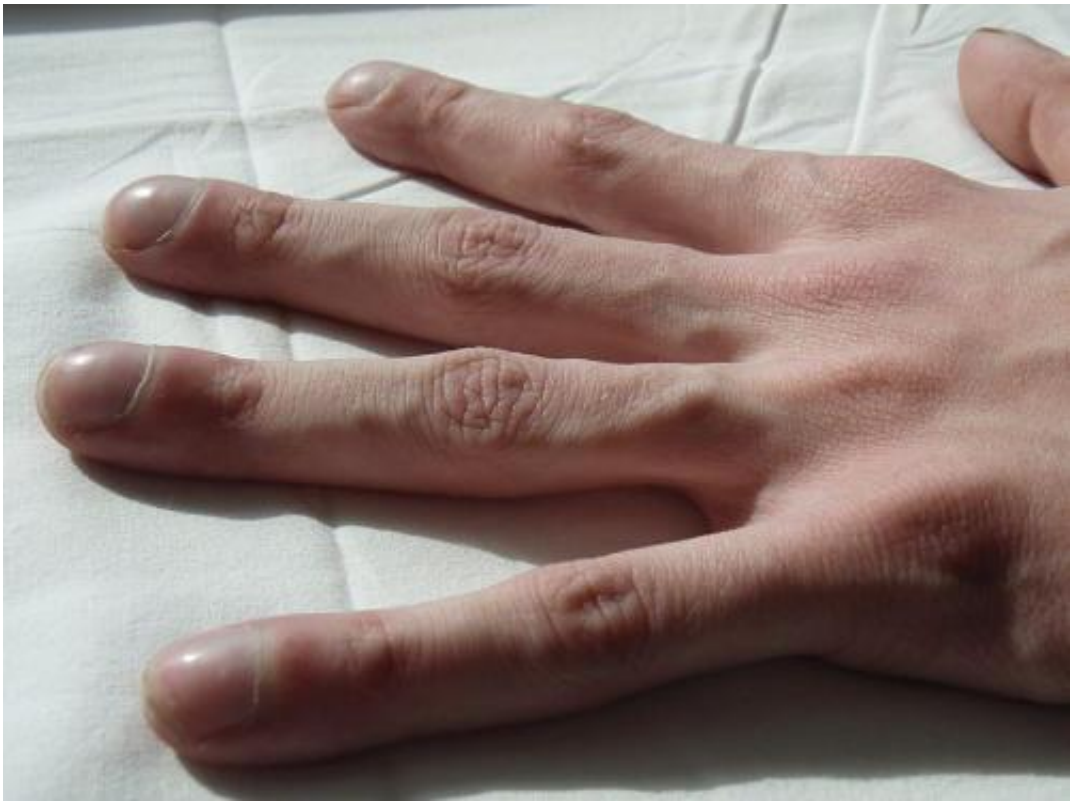

"Clubbing" of the fingers is a classic features of Cystic Fibrosis, although not present in many patients. Credit: Jerry Nick, M.D./ Wikipedia

Children with cystic fibrosis who do not have pre-existing severe lung damage have mild or asymptomatic illness when infected with COVID-19, a new study has revealed.

The first global research, published in the Journal of Cystic Fibrosis, to look specifically at the response of children with cystic fibrosis (CF) to infection from COVID-19 assessed the outcomes of 105 children across 13 countries, ranging from infants through to teenagers.

The researchers were from Newcastle University and The Cystic Fibrosis Trust—as part of the Global Registry Harmonization Group, made up of CF specialists from around the world, including the Cystic Fibrosis Foundation.

Study's findings

The experts found that over two thirds of children with CF infected with COVID-19 managed their symptoms at home. Of the 24 admitted to hospital, six needed extra oxygen and two needed non-invasive ventilation.

The data also showed that most children were treated with oral or intravenous antibiotics as is standard practice for any CF respiratory illness. A small number were given antiviral medications, and none received experimental treatments for COVID-19.

Dr. Malcolm Brodlie, co-author and MRC Clinician Scientist and Clinical Senior Lecturer, Newcastle University, said: "Our findings from our global study of 13 countries across the world reassuringly show that very few children were seriously unwell after developing COVID-19.

"The pandemic continues to have a profound impact on children with cystic fibrosis and their families so this is reassuring news for them.

"Moving forwards, we hope it will enable them to live their lives in the most fulfilling way possible—this is particularly important given the negative effects of isolation measures on quality of life, mental health,

schooling and delivery of healthcare."

CF is an inherited disease caused by a faulty gene. This gene controls the movement of salt and water in and out of cells, so the lungs and digestive system becomes clogged with mucus, making it hard to breathe and digest food.

There are over 10,655 people with cystic fibrosis living in the UK and this number is growing every year.

Collaborative effort

Robbie Bain, co-author of the study from Newcastle University and funded by the Cystic Fibrosis Trust summer studentship program, said: "This global project helps shine a light on the outcomes of people with cystic fibrosis after having COVID-19, gathering much needed evidence, and helping people make informed choices based on the best available advice."

Rebecca Cosgriff, co-author and Director of Data of Quality and Improvement at the Cystic Fibrosis Trust said: "In a ground-breaking collaborative effort from the worldwide cystic fibrosis community, we collected vital data from around the world during a global pandemic that will provide invaluable knowledge to clinicians treating children with cystic fibrosis.

"We hope this provides reassurance to the community and we will continue to monitor new data and learn more information about COVID-19 and cystic fibrosis."

More information: Robert Bain et al. Clinical characteristics of SARS-CoV-2 infection in children with cystic fibrosis: An international observational study, *Journal of Cystic Fibrosis* (2020). DOI:

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