

Possible link between common cold and Covid-19 deaths

A University of Edinburgh team has completed a study of people in Zimbabwe finding that the higher prevalence of common cold viruses in Africa may have resulted in lower death rates from Covid-19.

The research finds that Africans may have stored more antibodies from contact with other coronaviruses such as that which causes the common cold, and it is these which have protected them from Covid-19. It is this pre-existing cross immunity which may explain the relatively low death toll on the continent from Covid-19.

Professor Francisca Mutapi, of the University of Edinburgh's School of Biological Sciences, who led the study, said: "The world has a lot to learn from researching reasons underlying the way the pandemic unfolded in Africa. Only through studies such as this one can we derive actionable knowledge to better prepare for the next pandemic."

But the research also found that Africa accounts for more than one third of global deaths from respiratory infections, suggesting that coronaviruses and other pathogens circulate at higher levels there compared to the rest of the world.

The team led by the University of Edinburgh investigated whether antibodies produced in response to six other types of common coronaviruses also react with Covid-19.

Detailed molecular and computational analysis of the antibodies' targets indicates many were produced by immune responses to infection with one of the six other types of coronavirus, including common cold viruses. Some also appeared to have been produced to fight other pathogens, included flu viruses and parasites that cause malaria and sleeping sickness.

The antibodies detected included those targeting parts of the Covid-19 virus – for example, the spike protein – used in some vaccines to induce protective immunity.

The study has been published in The Lancet Microbe journal and was supported by the Scottish Funding Council and National Institute for Health Research along with researchers from the University of Zimbabwe and the Tackling Infections to Benefit Africa (TIBA) partnership and biotechnology company, PEPperPRINT.



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