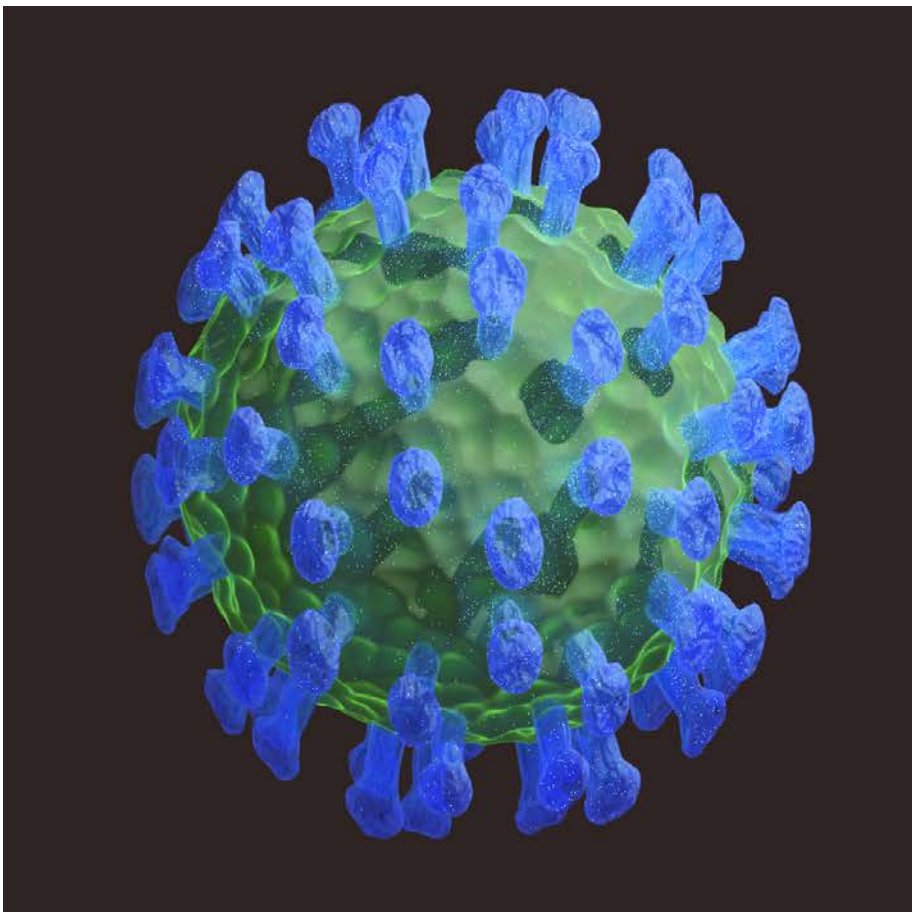


Saudi Arabia worst hit by MERS

A study on the prevalence of MERS-CoV in Gulf Corporation Council countries shows the virus has taken its greatest toll in Saudi Arabia.



An intermittent fasting regimen can reduce the size of white fat tissue cells (grey) and induce anti-inflammatory immune cell activity (red).

A team of scientists from Saudi Arabia has examined 1,550 reported cases of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection across the Gulf Corporation Council (GCC) countries to reveal disease prevalence in the Arabian Peninsula.

MERS-CoV was first identified in Saudi Arabia in 2012. Since then, the World Health Organisation has reported nearly 2,000 cases of MERS-CoV infection worldwide. Infected patients have been identified in 27 countries and the highest occurrences have been reported in the Middle East and Korea. Due to the high

fatality rate among patients with laboratory-confirmed MERS-CoV, there is an urgent need for measures to contain it.

KAIMRC's Mahmoud Aly and colleagues found that 93 percent of MERS-CoV cases reported in GCC countries between June 2012 and July 2016 were in Saudi Arabia, with the capital region Riyadh being the worst hit (52.4 percent of national cases).

The reason for the high prevalence of MERS-CoV in Saudi Arabia remains unclear. The origin of the virus has been traced to African bats, but in 2014 it was isolated from dromedary camels and there is evidence suggesting that they may have acted as an intermediate host for the virus for several decades. Little is known about the transmission of the virus from camels to humans, but only 8.6 percent of the MERS-CoV infected patients stated that they had been exposed to animals.

Speculating about the reason for MERS-CoV prevalence in Saudi Arabia, Aly says, "Saudi people could have a genetic predisposition that may contribute to their susceptibility to the virus infection." Future studies into the genetics of affected individuals may shed further light on this possibility.

Although virus transmission among the general population is not very efficient, the study confirms that once MERS-CoV enters a healthcare or hospital setting, it poses a great risk, especially to the elderly and patients receiving intensive care. These findings highlight the need for strict control measures in these settings.

The study's results will inform public health policies and the development of prevention strategies. "We hope to reduce the risk of new outbreaks by highlighting the importance of infection prevention and control infrastructures that will allow physicians and scientists to identify and immediately respond to the virus," says Aly.

Aly, M., Elroh, M., Alzayer, A., Aljuhani, S. & Balkhy, H. Occurrence of the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) across the Gulf Corporation Council countries: Four years update. *PLoS ONE* (2017).