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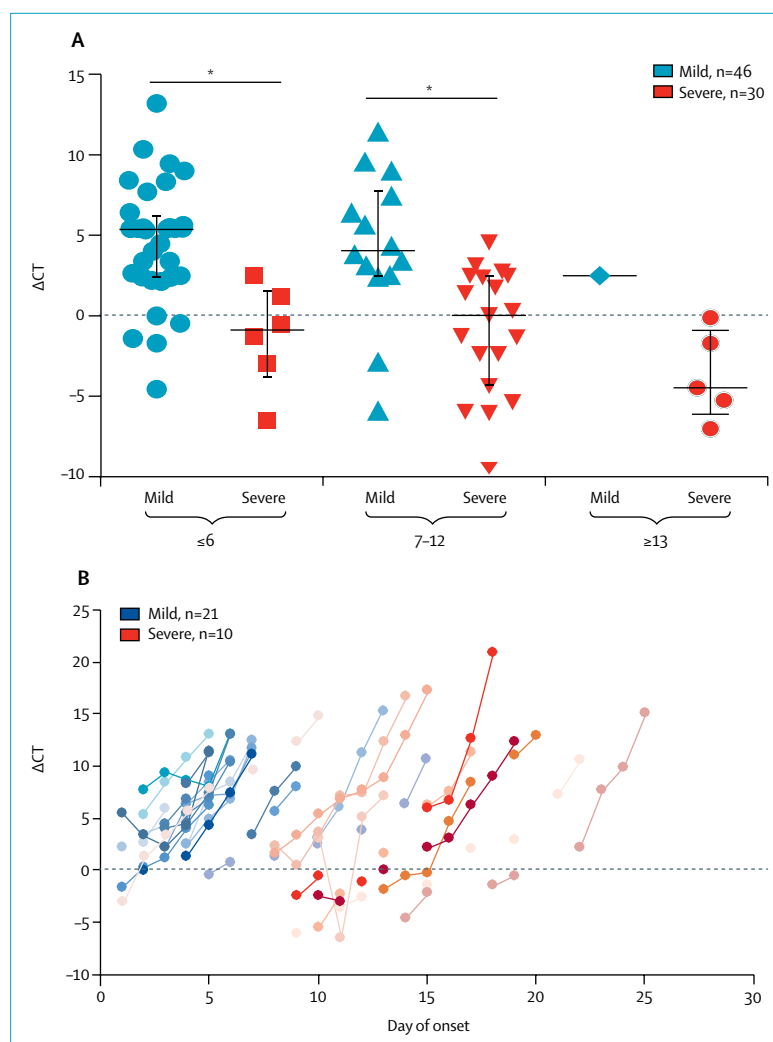


Figure: Viral dynamics in patients with mild and severe COVID-19
(A) Δ CT values ($Ct_{\text{sample}} - Ct_{\text{ref}}$) from patients with mild and severe COVID-19 at different stages of disease onset. Median, quartile 1, and quartile 3 are shown. (B) Δ CT values of serial samples from patients with mild and severe COVID-19. COVID-19=coronavirus disease 2019. * $p < 0.005$.

patients with severe COVID-19 tend to have a high viral load and a long virus-shedding period. This finding suggests that the viral load of SARS-CoV-2 might be a useful marker for assessing disease severity and prognosis.

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The first COVID-19 case in Afghanistan acquired from Iran



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The outbreak of coronavirus disease 2019 (COVID-19) has now spread to over 100 countries with more than 100 000 laboratory-confirmed cases worldwide.¹ Here we describe the first case of COVID-19 in Afghanistan acquired from Iran.

A 35-year-old male Afghan shopkeeper visited Qom, Iran, for 1 week beginning Feb 9, 2020. In Iran, he had contact with employees from the shoe company that supplied his shop. He returned to his home in Herat, Afghanistan, by car on Feb 15, 2020, where he spent time with his family and friends without any precautions. On Feb 16, his symptoms began with fever, headache, cough, and dyspnoea. 5 days later, he felt increased concern and decided to visit a private clinic. At the private clinic, he was suspected of COVID-19 as he had recently returned from Iran, where the COVID-19 epidemic has intensified. The patient was referred to the governmental hospital to further investigate COVID-19 disease.

On the day of admission, Feb 22, 2020, the patient reported headache and appeared stressed. A physical examination showed no fever, a pulse of 85 beats per min,

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blood pressure of 110/70 mm Hg, oxygen saturation at ambient air of 98%, and respiratory rate of 25 breaths per min accompanied with wheezing. On auscultation, a mild crepitation was heard beneath the lungs. No other abnormality was found. There was no specific change on the patient's x-ray (appendix). Full blood count was in the normal range, with a white blood cell count of 7.5×10^9 cells per L, a haemoglobin concentration of 14.1 g/dL, and a platelet count of 235×10^9 cells per L. The patient's procalcitonin concentration was 0.21 ng/mL. The fasting blood sugar test, the amount of creatinine and urea in the blood, and the concentration of alanine transaminase and aspartate transaminase were in the normal range. The patient had no underlying medical problems.

Molecular assays were done to detect COVID-19 and the confirmed diagnosis was made 3 days after admission. All individuals who had been in close contact with the patient were quarantined at home, and accommodations and vehicles

related to the patient were disinfected. Treatment for the patient included ceftriaxone 1 g (vial) every 12 h for 7 days, oseltamivir 75 mg (tablets) every 12 h for 30 days, and terbutaline 10 mg (tablets) every 12 h for 7 days. 17 days from admission, the patient was in good health and a molecular test was done again with a negative result. As of Feb 28, 2020, all people who had been in close contact with the patient appeared to have no symptoms.

The weakened public health-care system in Afghanistan, amid widespread poverty and instability, faces a serious challenge, with a looming epidemic at its borders from neighbouring Iran. We stress that all contacts and returning travellers from Iran undergo testing to avoid missing asymptomatic patients, which might result in substantial chains of transmission throughout Afghanistan.

We declare no competing interests. SHM and JS contributed equally to this work. Patient consent was obtained for publication.

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