



Double Disaster: Pandemic and Earthquake

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Dear Editor,

Described as the biggest global disaster after the Second World War, the coronavirus disease 2019 (COVID-19) pandemic has caused an unprecedented crisis not only in the health system but also in socioeconomic areas (1). Most governments have implemented several measures to prevent the spread of COVID-19 and to further strengthen the capacity of the healthcare systems, while carrying out treatment and vaccine development efforts to combat the pandemic. Maintaining social distance, closing places of public gathering, restricting collective activities, implementing curfews, and establishing special COVID-19 care areas in healthcare institutions have proven to be effective for slowing down the spread of the virus. However, the occurrence of an earthquake in an outbreak environment, as we encountered in Izmir, may create hurdles in the effective implementation of such measures and thus lead to an increase in the spread of the virus (2).

A severe earthquake with an instrumental magnitude of 6.6 occurred on October 30, 2020, at 14:51 local time in the Aegean Sea between the north of Samos Island and the coast of Doğanbey-Izmir (37.9020 North Latitude, 26.7942 East Longitude) (3, 4). The earthquake seriously affected Izmir, which was approximately 70 km from the epicenter and has a population of 4,367,251. The Buca, Bayraklı, Bornova, Kemalpaşa, and Menderes districts of Izmir where approximately 1,478,630 people live witnessed the heaviest impact of earthquake with huge damage to properties as the buildings collapsed and many lost their lives (4, 5). The earthquake tremors were also felt in entire Western Anatolia and North Aegean islands, especially in Muğla, Aydın, Denizli, Manisa, Uşak, Afyonkarahisar, Kütahya, Balıkesir, Bursa, Çanakkale, Istanbul, and Sakarya (3). The viral spread in Turkey showed an upward trend post occurrence of the earthquake, with 78 deaths and 2,322 new COVID-19 cases reported across the country. In the Aegean region, 242 new cases were detected on the day of the earthquake (6).

Around 114 people died and 1035 were injured due to the earthquake in Izmir. This calamity created a situation of sudden shock in addition to the existing burden of the COVID-19 pandemic on the healthcare system (7). In fact, the surge of casualties brought to healthcare institutions after the earthquake may have violated many COVID-19 preventive rules and regulations in these settings and caused new case clusters. In addition, the need for emergency response and aid efforts after the earthquake led to an increase in human and material mobilization, which was to be minimized during the pandemic.

A total of 2,910 tents have been set up in different regions of Izmir so far as rescue camps for people who are not able to enter their homes because of worry, fear, or damage (7). The establishment of tent cities in a relatively narrow area, common use of some tents, and limited washing and cleaning facilities has led to increase in the risk of COVID-19 transmission. Relief supplies coming from different places and unknown sources to tent cities pose a risk for possible infection being carried to these tent cities. On the contrary, it appears inevitable that protective measures against this pandemic, such as the use of disinfectants, wearing of face masks, and compliance with social distance rules are neglected due to the shocking event and severe stress caused by the sudden occurrence of the earthquake.

Severe acute respiratory syndrome coronavirus 2 spreads more easily in cold and humid weather (8). With this feature, the occurrence of the earthquake in Izmir earthquake during autumn, which is already known to be a flu causing season, facilitates the formation of case clusters in tent cities. In addition, dust from collapsed buildings might play a facilitating role in the transport of the virus in the earthquake zone.

The pandemic, which has been a year long, is predicted to last at least another year. The Izmir earthquake has revealed the importance of being prepared for disasters that may develop simultaneously with the pandemic. Given that Turkey is in an earthquake prone zone and recently expected a severe intensity earthquake in Istanbul, de-

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veloping response plans that can meet the additional requirements caused by natural disasters while restrictions against COVID-19 spread are maintained, is of crucial importance.

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