

Total Distance and Radius of Wandering of Patients with COVID19 before the First Final Diagnosis: GPS Tracking Analysis

Dear Editor,

COVID-19 is an important problem of the global public health system in the present day. After its first emergence in China,^[1] the emergences already occur in more than 160 countries worldwide. Since this disease is a respiratory infection that is easily transmittable for human to human, it is difficult to control. The important consideration should be given to early diagnosis that can lead to proper disease control. In fact, in the early phase, the disease might be asymptomatic and treatment is usually successful.^[2] An interesting fact is a disease spreading before the diagnosis of COVID-19. Some asymptomatic COVID-19 case before overt illness might wander to several places and cause local transmission.

Here, the authors perform a retrospective analysis aiming at finding total distance and radius of wandering of patients with COVID19 before the first final diagnosis. The retrospective assessment covered data on the 3-day period before diagnosis. The geographical coordinate by Global Positioning System (GPS) Tracking analysis on available reported timelines of 15 patients in Thailand is done. The geographical point assessment and further distance measurement is done based on Google Map. According to this study, the average total distance and radius of wandering of patients with COVID19 before the first final diagnosis are equal to 40.7 ± 20.4 km 50.9 ± 40.6 km, respectively. Based on these data, there is a considerable distance of wandering of patients during the asymptomatic incubation period. Disease control has to cover the mentioned data. Based on these data, the area to set strict control in case there is an incidence of COVID-19 is 8372.25 km^2 , which is considered a big area.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Hsia W. Emerging new coronavirus infection in Wuhan, China: Situation in early 2020. Case Study Case Rep 2020;10:8-9.
2. Hu Z, Song C, Xu C, Jin G, Chen Y, Xu X, *et al*. Clinical characteristics of 24 asymptomatic infections with COVID-19 screened among close contacts in Nanjing, China. Sci China Life Sci 2020. doi: 10.1007/s11427-020-1661-4. [Epub ahead of print].

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