

Opinion
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Will the Third Wave of Coronavirus Disease 2019 Really Come in Korea?



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I personally predicted that about 10,000 people would be diagnosed with coronavirus disease 2019 (COVID-19) around March 10, based on a regression calculation that was estimated from last week's trend provided by the Korean Centers for Disease Control and Prevention.¹ However, since March 5, the number of confirmed patients began to slow down slightly, and as of March 8, the inclination is clearly slowing down. If this new trend continues at this pace, I hope that the number of confirmed cases could decline by next week. However, will this plague go away as easily as we would want it to be? If the third tide comes back, all hope is gone and the vicious cycle begins again.

At this point, I would like to point out what conditions must be met for the third wave to come.

- 1) A brand new mutant virus: No matter how much it rampages through the whole country, the disease eventually dies out because the herd immunity will be established someday. However, what if the coronavirus that comes back is not the same as the previous one and, therefore, we are not ready for the immunity against it? Nightmares begin again. It's even worse.

What's really disturbing is that there is really a report about new mutations actually emerging.² I don't know how much reliable this report is, but in any case, it is clear that mutants have appeared.

- 2) Another outbreak from other than religious or political rally, i.e., school or long-term care facility: As we have seen clearly in this situation, the plague explodes when two conditions are met: a close contact group in an isolated/closed space. Although the rally of religion, politics, and fellowship is now banned, the possibility of another outbreak is minimized, but there is still a trigger. I think there are two main types. One is an outbreak from a school, the other is from a nursing home or a long-term care facility (I will exclude a cruise ship because at least it can be quarantined at sea). The former will not need any further explanation and, above all, the latter is more concerned. In the former case, healthy young people are the main members, but in the latter the people have lots of handicaps such as old age and underlying chronic diseases. Rather, even now, although small and intermittent, news of a few outbreaks at a nursing home or long-term care facilities is being heard. What if this explodes on a massive scale?

3) Import from a foreign country: As mentioned earlier, mutations have been reported. Therefore, if a new outbreak due to new mutants begins, I think it is likely to be in China. There is no objection to the fact that restrictions on immigration from China are now meaningless given the current domestic situation of community infections in Korea, although, to be honest, I do not completely agree with the opinion. However, if a new wave by mutants begins in China, we will have to seriously discuss the restriction of entry from China again. As we have already been greatly affected by this plague, I think we should ban immigration from China to prevent further spread at that time.

Therefore, the countermeasure is naturally conceived. Although the emergence of new mutations cannot be prevented, it is necessary to prepare for the possibility of the big outbreaks in schools and nursing homes, and to re-consider restrictions on entry from China.

REFERENCES

1. Korean Centers for Disease Control and Prevention. Current statistics of COVID-19 in Korea. http://ncov.mohw.go.kr/bdBoardList_Real.do?brdId=1&brdGubun=13&ncvContSeq=&contSeq=&board_id=&gubun=. Updated 2020. Accessed March 8, 2020.
2. Tang X, Wu C, Li X, Song Y, Yao X, Wu X, et al. On the origin and continuing evolution of SARS-CoV-2. *Natl Sci Rev* 2020.

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