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Disappearance of Influenza during the COVID-19 Pandemic: Nepal's Experience

Sher Bahadur Pun[1]

[1]Clinical Research Unit, Sukraraj Tropical and Infectious Diseases Hospital, Kathmandu, Nepal

Dear Editor,

Each year, Nepal witness two peaks of influenza activity, firstly during the month of January-March and secondly from July to August.[1] In fact, more cases are usually observed during July through August as compared to January-March. Surprisingly, no laboratory-confirmed cases of influenza reported during the months of July and August in Nepal this year.

Influenza activity was reported until the week 14 (5 April, 2020) in Nepal.[2] SARS-CoV-2 infection has drastically increased from the beginning of the July, 2020 in Nepal.[3] From July through September (weeks 28-38) 2020, a total of 114 samples were examined for influenza virus, and none of these samples tested positive.[4] There were, however, 736 and 197 influenza cases during the same period in 2019 and 2018 respectively (Figure 1).[4] Two peaks (Feb-Mar & Aug-Oct) of influenza activity can also be found in India, however, cases of influenza dropped shapely this year compared with the previous year.[5] Indeed, there was nearly no influenza cases worldwide this year.[6] Researchers believe that the decline in influenza cases during the COVID-19 pandemic might be owing to wearing face mask, maintaining physical distancing, regular hand washing and lockdowns. However, both respiratory viruses are transmitted the same way, and preventive measures should, therefore, equally be effective to prevent them from spreading. A phenomenon called "Viral interference" i.e. inhibition of growth of one virus by another,[7] could be a possible explanation for this observation, although it has yet to be determined.

Many researchers speculate about the possible spread of co-circulation of SARS-CoV-2 with influenza virus that may lead to higher mortality rate.[8] Nevertheless, Nepal did not observe any cases of influenza during its peak season (July-August, 2020), despite not being vaccinated and ignoring preventive measures. Nepal's experience challenge researchers' assumption about possible co-circulation of SARS-CoV-2 and influenza and its consequences; and raised many questions regarding the relationship between these two respiratory viruses that warrants further investigation.

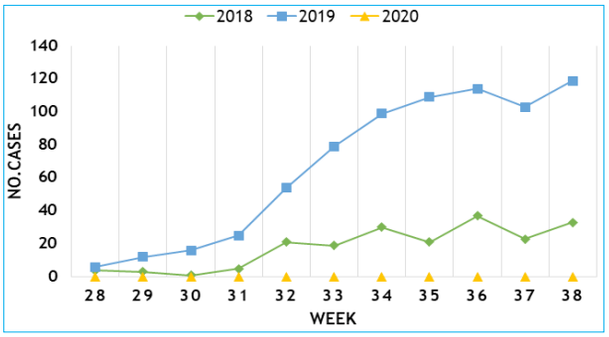

Figure 1. Number of Influenza cases by week during the years 2018, 2019 and 2020, Nepal

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Correspondence: Sher Bahadur Pun, Clinical Research Unit, Sukraraj Tropical & Infectious Diseases Hospital, Kathmandu, Nepal. Email: drsherbdr@yahoo.com, Phone: +9779849246140.

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