LETTER

Hypothetical unfolding of a global conjoint epidemic

The ongoing global pandemic of the Coronavirus disease 2019 (COVID-19) is a public health emergency. A range of measures are being taken worldwide across the healthcare sector as well as at national levels to curb this crisis.

Increasing number of dengue cases and explosive outbreaks are reported in new areas in the world which were previously dengue-free. The cycles of epidemics occur every 5–6 years, usually peaking in the hottest months around rainy season from May to September.[1] There are an unusually high number of dengue cases being reported outside the typical peak dengue season this year. Moreover, a switch in predominant serotype has been associated with each of the two outbreaks in the past.[2] So, there may be a possibility of an impending outbreak this year due to the predominance of different serotype noted across different parts of the world.

Dengue fever and COVID-19 are difficult to distinguish because they share certain clinical and laboratory features. Two cases in Singapore with false-positive results from rapid serological testing for dengue, which were subsequently confirmed to have COVID-19, has been reported.[3] Thus, failing to consider COVID-19 because of a positive dengue rapid test result may have serious implications.

In case the COVID-19 cases will continue to rise over the next couple of months, then this will coincide with the peak season of dengue fever and a potential chance that these two outbreaks may happen simultaneously. The diagnostic dilemma that exists, combined with the burden on the healthcare systems would be immense. In the midst of this complex epidemiological scenario of a hypothetical combined epidemic of COVID-19 and dengue, intensified surveillance for both these diseases and collaborations between various government agencies will be vital. Heightened clinical vigilance and preparedness by all healthcare staff will also play a pivotal role.

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