

*Invited Editorial*

**Preventing vascular events in seasonal influenza attacks - A lesson from the experience of COVID-19 pandemic**

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*Bangladesh Journal of Medical Science Vol. 22 No. 02 April'23 Page : 256-257*

*DOI: <https://doi.org/10.3329/bjms.v22i2.64980>*

Dear Sir,  
COVID-19 patients with comorbidities have more propensity to get vascular complications. The important pathophysiology of this disease is endothelial dysfunction, thrombosis, coagulopathy, and multiple organ failure.<sup>1</sup> The abnormal D-dimer level in COVID-19 patients has been linked with the worst disease outcome. The increased levels of D-dimer in COVID-19 patients have been found to have resulted in various vascular events like myocardial infarction (MI), stroke, acute kidney injury (AKI), deep vein thrombosis (DVT), pulmonary embolism, etc. Even a slight rise in D-dimer level, above the normal value in COVID-19 patients with comorbidities, is a greater risk of attaining various vascular complications leading to increased morbidity and mortality. The same study also inferred that the patients with mild COVID-19 but having comorbidities at home isolation must certainly check their D-dimer value, and at the same time should start early oral anticoagulants, if results are found to be positive. This can help them in preventing the development of vascular events leading to high morbidity and mortality.<sup>2</sup> This novel concept based on several studies has indeed saved a million lives. The same concept could now be extended to the current scenario of seasonal flu

attacks in India, which is quite prevalent specially in every seasonal change. Although seasonal influenza is less severe compared to COVID-19, the condition can still produce a lot of vascular events, particularly in patients suffering with other severe illnesses and comorbidities. There is a connection between influenza-like illness and cardiovascular events.<sup>3</sup> Influenza-like illness increases the short-term risk of stroke, mainly in patients less than 45 years.<sup>4</sup> In patients with comorbidities, influenza can contribute to the deterioration of renal function resulting in AKI.<sup>5</sup> Thus, we emphasize strict evaluation of D-Dimer levels in all mild illness patients with comorbidities of both COVID-19 as well as influenza and suggest earlier starting of oral anticoagulants if the results are found to be positive. Another important insight is, patients with comorbidities with prior history of COVID-19 infection are prone to get severe damage if they get infected by seasonal flu attacks because of less immunity. We may say, COVID initiates the ignition while influenza increases the burning fire. Both vaccination and early oral anticoagulants in COVID-19 and influenza infections, particularly for patients with comorbidities, can change the worst expected outcome if D-dimer is taken as an investigation in first priority.

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