

# D-dimer, COVID-19 and Diabetes: A Correspondence

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Dear Editor, Miri et al. reported on an interesting finding in the publication “D-dimer Level and Diabetes (DM) in the COVID-19 Infection.”<sup>1</sup> In that study, the D-dimer level in COVID-19 cases with DM is about 2.07 times higher than those without DM (1745 vs 845 ng/mL).<sup>1</sup> This finding is concordant with a previous report by Mishra et al. that level of D-Dimer is significantly higher in COVID-19 patients with underlying DM (1509 vs 515 ng/mL).<sup>2</sup> We agree with the conclusion by Miri et al. that “*diabetics with COVID-19 are likely to develop hypercoagulation with a poor prognosis.*”<sup>1</sup>

We would like to add a more detailed discussion on the pathogenesis of elevated D-dimer in COVID-19 case. An increased D-dimer in COVID-19 cases with DM might be a result from at least 2 underlying pathologies. First, COVID-19, regardless underlying DM or not, can have elevated D-dimer levels.<sup>2</sup> Degree of elevated D-dimer level is also associated with COVID-19 severity.<sup>3</sup> Second, D-dimer elevation is also a clinical finding in DM regardless of COVID-19.<sup>4</sup> Coban et al. found that D-dimer in DM case was 1.45 times higher than normal subjects (615 VS 424 ng/mL).<sup>4</sup> According to observation by Miri et al. after extraction of background elevated D-dimer level due to the effect of DM, the elevation of D-dimer from COVID-19 still exists (about 0.62 times). How

both underlying pathologies contribute to change of D-dimer level is an interesting issue for further study in clinical thrombohemostasis.

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