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Editorial

Risk for Newly Diagnosed Diabetes and Impact of Pre-diabetes and Undiagnosed Diabetes on Severity and Mortality for SARS-CoV-2 Infection

Attapon Cheepsattayakorn[1,2]*, Ruangrong Cheepsattayakorn[3] and Porntep Siriwanarangsun[1]

[1]Faculty of Medicine, Western University, Pathumtani Province, Thailand

[2]10th Zonal Tuberculosis and Chest Disease Center, Chiang Mai, Thailand

[3]Department of Pathology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

***Corresponding Author:** Attapon Cheepsattayakorn, 10th Zonal Tuberculosis and Chest Disease Center, Chiang Mai, Thailand.

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Hyperglycemia and diabetes are risk factors for critical COVID-19 clinical outcomes [1]. Disproportionately, COVID-19 pandemic has affected increased-risk-of-severe-COVID-19 individuals [2]. During the COVID-19 pandemic, increased in number of type 1 diabetes diagnosed [3,4] and increased frequency and severity of diabetic ketoacidosis (DKA) at the time of diagnosis of diabetes [5] have been demonstrated in European pediatric populations. Independent of diabetic status, pre-diabetes and undiagnosed type 2 diabetes revealed increased risk of severe COVID-19, whereas intrahospital or de novo hyperglycemia predicted critical COVID-19 clinical outcomes [1]. Among individuals aged < 18 years with COVID-19 infection, there was an increased risk for diabetes supported by independent studies in COVID-19 adults [2]. A recent study demonstrated that COVID-19 patients with diabetes presented with more hyperglycemia, whereas type-2-diabetes patients with COVID-19 infection presented with more intensive-care-unit (ICU) need [6]. Another recent study revealed that lower blood glucose concentration, higher inflammatory biomarkers, and ICU admission were associated with diabetes diagnosed at the time of COVID-19 presentation [7].

In conclusion, long-term follow-up studies of COVID-19 are urgently needed to determine the potential relation between COVID-19 and increased risk of diabetes, particularly in persons aged below 18 years.

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