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Volume 1 Issue 1
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ES Journal of Microbiology

Destruction of Monocytes/Macrophages by Corona Virus Might Explain Peri-Alveolar and Systemic Micro-Thrombi

Editorial

Thomas Stief*
Institute of Laboratory Medicine and Pathobiochemistry, University Hospital Giessen & Marburg, Germany

Received: May 14, 2020; **Accepted:** May 18, 2020; **Published:** May 20, 2020

***Corresponding author:** Thomas Stief, Central Laboratory, University Hospital, D-35043 Marburg, Germany

Editorial

An important pathophysiologic complication of *Corona virus* infection is the generation of micro-thrombi in the alveolar structure (radiologically seen as ground glass opacities) possibly accompanied by systemic micro-thrombi in many organs [1-3], the latter being typical for disseminated intravascular coagulation (DIC).

Monocytes/macrophages (MØ) contain high concentrations of the strongest trigger of blood coagulation, that is tissue factor (TF). Therefore, destroyed MØ trigger extrinsic F7a-driven thrombin generation via TF and intrinsic F12a/kallikrein driven thrombin generation via free DNA/phospholipids [4], kallikrein causing capillary leakage. The *Corona virus* seems to infect and destroy alveolar macrophages or blood monocytes [5-7].

Therefore, activation of blood coagulation should be monitored via the biomarkers D-Dimer and systemically circulating amidolytic thrombin activity [8]. Using low molecular weight heparin in therapeutic dosage, eventually combined with infusion of a high quality antithrombin drug, elevated systemic thrombin activities should be lowered to less than 120% of normal. Physiological concentrations of generators of non radical singlet oxygen such as taurine-chloramine might be beneficial [9-20].

Acknowledgments

No conflict of interests.

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