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Toxoplasma gondii tachyzoites induce NETosis in donkeys

Sami Gokpinar¹, Kader Yildiz¹, Neslihan Sursal², Cahit Babur³ and Ahmet Kursat Azkur¹

¹Kirikkale University, Turkey

²Ankara University, Turkey

³Türkiye Halk Sağlığı Kurumu, Turkey

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Toxoplasma gondii infected a lot of intermediate hosts including equids. Serum antibodies against to *T. gondii* have been found in donkeys in the world. Neutrophil extracellular traps (NETs) are one of the major fighting mechanisms of polymorph nuclear neutrophils (PMN) against pathogens. NETs provide extracellular entrapment and killing of pathogens including parasites in organism. The aim of the study was to detect NETs formation of polymorph nuclear neutrophils (PMN) of donkey encounter with *T. gondii* tachyzoites. For the first time, we demonstrate extracellular traps released from donkey PMN after confronted with *T. gondii* tachyzoites *in vitro*. Myeloperoxidase, neutrophil elastase and histones (H3) were observed in fine NETs structures triggered by *T. gondii* using fluorescence microscopy. Fluorometric analysis revealed that NETs amount increased depending on incubation time.

Biography

Sami Gokpinar has completed his PhD Education and Postdoctoral studies in Kirikkale University, Turkey. He has studied Parasitology at the University Kirikkale, Turkey.

samigokpinar@hotmail.com

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