



## INTERNATIONAL SUMMIT ON HEPATOLOGY AND NEPHROLOGY RESEARCH



**Saule Abisheva<sup>1</sup>, Kristina Ruts kaya-  
Moroshan<sup>1</sup>, Anilim Abisheva<sup>1</sup>**

<sup>1</sup>Department of Family Medicine №1, NJSC "Astana Medical University", 010000 Astana, Kazakhstan

### **Antimalarial Drugs at the Intersection of SARS-CoV-2 and Rheumatic Diseases: Potential Opportunities**

**Abstract:** The COVID-19 pandemic has become a significant global health emergency, stimulating the search for therapeutic repurposing of agents with established immunomodulatory properties. The objective was to evaluate and compare the efficacy and safety of antimalarial drugs (ADs) in autoimmune rheumatic diseases (AIRDs) and COVID-19. ADs, particularly hydroxychloroquine (HCQ), are widely applied in the management of AIRDs due to their anti-inflammatory, immunomodulatory, and antithrombotic effects. Early in the pandemic, proposed antiviral mechanisms—including interference with endocytic pathways, inhibition of ACE2 receptor glycosylation, blockade of sialic acid receptors, and modulation of cytokine release—suggested potential activity against SARS-CoV-2. Analysis of data from randomized controlled trials, observational studies, and meta-analyses allows for comparison of the pharmacological properties, clinical efficacy, and safety of ADs in AIRDs and COVID-19. While initial studies reported reductions in viral load and clinical improvement with HCQ, large-scale trials (RECOVERY, SOLIDARITY) demonstrated no significant mortality benefit and revealed increased risks, including QT interval prolongation and retinopathy, particularly at the higher doses required for antiviral activity. In contrast, prolonged low-dose administration in AIRDs remains effective and well tolerated, contributing to improved survival, reduced disease activity, and prevention of complications, including during pregnancy. Current evidence does not support the use of ADs for the treatment or prevention of COVID-19, emphasizing the importance of precise patient stratification and optimal dosing strategies in future investigations.

**Biography:** Head of the department of Family Medicine number 1, JSC "Medical University of Astana". Professor of department of Rheumatology. Member of Scientific society of rheumatology in the Republic of Kazakhstan. The participant of editor's society of Journal of "Rheumatology of Kazakhstan". The independent consultant of the President's Medical Center. The main research interest is focused on studying the course of rheumatoid arthritis, lupus erythematosus, ankylosing spondylitis, osteoporosis and osteoarthritis.