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Katarzyna Wieczorek¹, *Klaudia Kulak¹, Aleksander Krupski¹, Zuzanna Fajfer¹, Lukasz Szarpak²

Rheumatic drugs as part of the treatment of patients with COVID-19

¹Student's Journal Club, Lazarski University, Warsaw, Poland²Faculty of Medicine, Lazarski University, Warsaw, Poland

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TO THE EDITOR

The outbreak of the COVID-19 pandemic which spread rapidly throughout China, become global issue. SARS coronavirus (SARS-CoV-2) cause an acute respiratory infection in animals and humans (1). Mainly transmitted throughout respiratory tracts, spreads by droplets from sneezing or cough (2). The biggest issue is no sufficient information about how to prevent developing infection caused by SARS-CoV-2, which is a real threat for patient with comorbidities.

From current data patient with chronic autoimmune inflammatory disorders such as Rheumatoid Arthritis (RA) may have a higher chance of getting COVID-19 infection than general population, and the symptoms could be more serious than someone who doesn't have RA. It must be mentioned about relationship between COVID-19 and patients with rheumatological diseases. Patient with rheumatoid arthritis (RA) caused by impairment of immune system, is endangered is for secondary bacterial infections to occur after the viral infection. However still growing knowledge about pathophysiology of SARS-CoV-2 infection is leading to the introduction of drugs used for the treatment of rheumatoid arthritis as a treatment for COVID-19 (3). From few past decades antimalarial drug such as Chloroquine (CHQ) and Hydroxychloroquine (HCHQ) have been used as a treat for autoimmune disorders including RA, systemic lupus erythematosus (SLE) or Sjögren's syndrome, cause they are cheaply and commonly available. Reports from China found that

chloroquine has possibility to inhibiting SARS-CoV-2 and showed an efficiency in treating COVID-19 in humans (4, 5). It is caused by mechanism of chloroquine, which decrease the acidity in endosomes, which preventing endosome to releasing virus into the cytoplasm. That's is the reason, why chloroquine and hydroxychloroquine have been included to list of substances for treatment of COVID-19 pneumonia (6). Both substances might be used to prevent infection in patient with RA. Results conducted in China, showed that first documented clinical trial of using CHQ in COVID-19, inhibited virus associated pneumonia, and may have fluence to removing virus from the lung (7). Nevertheless, there are laconic results about safety and tolerability of CHQ and HCHQ as anti-COVID-19 drugs. Leading a trials whether HCHQ and CHQ are suitable option for treating patient with COVID-19 shows it is yet early to make clear and approved conclusion about efficiency both substances against COVID-19. It is necessarily to implement a Randomized Controlled Trial (RCT), to get future positive or negative effect of drugs used to treat RA and SLE in treatment COVID-19 patient (8).

In summary, the COVID-19 epidemic is a real threat for health of the patient with complex disease like RA, because them carries a higher infectious risk than general population. It is justified to control patients with rheumatic diseases receiving immunosuppressive drugs, that these data could help rheumatologists.

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Address:

*Klaudia Kulak
Student's Journal Club, Lazarski University
Swieradowska 43 Str.,
02-662 Warsaw, Poland
klaudia4857@gmail.com

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