Response to: ‘Patients with lupus with COVID-19: University of Michigan experience’ by Wallace et al

We thank Wallace and Waher for their interest in our study on the course of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease 2019 (COVID-19) in a case series of patients with systemic lupus erythematosus (SLE) under long-term treatment with hydroxychloroquine (HCQ) and the reporting of their own case series. Their results corroborate those from our and other recently published observational studies in SARS-CoV-2-infected patients with SLE pointing to a lack of a preventive effect of HCQ, and furthermore underscore the notion that a high percentage of these patients suffer from several comorbidities. In their case series patients with SLE appeared to be a high percentage of these patients suffer from several comorbidities. In their case series patients with SLE appeared to be more prone to obesity (80%), chronic obstructive pulmonary disease or asthma (60%), hypertension (20%), diabetes (20%), and chronic kidney disease (20%). While in our cohort the main comorbidities were obesity or overweight (71%), chronic kidney disease (47%) and hypertension (35%). These chronic medical conditions have all been reported to be associated with severe forms of COVID-19, and the presence of a similar association with symptomatic or severe cases of COVID-19 in patients with SLE therefore does not come as a surprise.

While the presence of an underlying immunosuppressed condition has not yet been associated with an increased death rate during the course of COVID-19, it is nevertheless important to note that, both in our case series and that reported by Wallace and Waher, 71% and 41% in SLE and 80% and 60% of the patients were treated with glucocorticoids or immunosuppressants, respectively. In a recent study on COVID-19 in immune-mediated inflammatory diseases such as psoriasis, rheumatoid arthritis, ankylosing spondylitis and inflammatory bowel diseases, the use of oral glucocorticoids and methotrexate was higher among patients for whom hospitalisation was warranted. These drugs might therefore represent a risk factor for developing symptomatic or severe forms of COVID-19, although more data will be required to confirm a possible, causative, link between immunosuppressive therapy and COVID-19 severity.

Patients with SLE are possibly at risk to develop symptomatic or severe COVID-19, not because of their primary disease, glucocorticoid and/or immunosuppressive therapy, but as a consequence of associated comorbidities. Although patients with SLE have a greater burden of comorbidities such as hypertension, chronic kidney disease and hyperlipidaemia, the prevalence of obesity and overweight is less documented in SLE and may vary depending on the country. On the other hand, it is important to note that patients with lupus are mostly women of young age, two factors associated with a better prognosis of COVID-19. Notwithstanding the similar conclusions that can be drawn from our case series and that of Wallace and Waher, only larger cohort studies based on the detection of SARS-CoV-2, as well as the presence of specific anti-SARS-CoV-2 antibodies, will provide detailed information on the incidence and severity of COVID-19 in this fragile population. In this respect, several national and international registers have been launched at the beginning of the pandemic, and we expect that the forthcoming results will provide more insight into the complexity of risk factor involvement in COVID-19 severity in SLE and other autoimmune diseases.

Alexis Mathian, Zahir Amoura

Sorbonne Université, Assistance Publique–Hôpitaux de Paris, Groupement Hospitalier Pitié–Salpêtrière, French National Referral Center for Systemic Lupus Erythematosus, Antiphospholipid Antibody Syndrome and Other Autoimmune Disorders, Service de Médecine Interne 2, Institut E3M, Inserm UMR5, Centre d’Immuno logits et des Maladies Infectieuses (CIMI-Paris), Paris, France

Correspondence to Dr Alexis Mathian, Internal Medicine, University Hospital Pitié Salpêtrière, Paris 75651, France; alexis.mathian@aphp.fr

Handling editor Josef Smolen

Contributors AM and ZA wrote the response letter.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not required.

Provenance and peer review Commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ’s website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.

To cite Mathian A, Amoura Z. Ann Rheum Dis 2021;80:e36.

Received 19 May 2020
Accepted 20 May 2020
Published Online First 31 May 2020

ORCID iD Alexis Mathian http://orcid.org/0000-0002-7653-6528

REFERENCES


