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outcome.⁴ The CORONADO study⁵ described that BMI is associated with an adverse outcome after COVID-19 infection, at 7 days of admission, independently of glycaemic control.⁵ Kim and colleagues, reported a fatal DKA and a delayed recovery HHS case, in Korean patients with COVID-19 infection and known type 2 diabetes.⁶

Our patients developed protracted ketonaemia and ketoacidosis, with median time to ketone resolution in DKA of approximately 35 h; whereas in non-COVID-19 DKA cases the median duration of ketoacidosis is approximately 12 h.⁷ Similarly, a case report of DKA in a patient with COVID-19 infection and previously undiagnosed diabetes, describes that ketonaemia resolved after 24 h.⁸ According to relative experience from China, presence of ketosis and ketoacidosis in patients with COVID-19 infection was associated with length of hospital admission and overall mortality.³ Emerging reports suggest substantial insulin resistance and possibly relative insulinopenia in severe COVID-19 disproportionate to that seen in critical illness caused by other conditions,⁹ which might have contributed to the metabolic decompensation. In line with these observations, 35% of patients in our study required an increase of the fixed dose insulin infusion above the recommended insulin dose for DKA of 0.1 units/kg per h.² The slower fluid administration in the context of co-existing respiratory complications might also explain at least in part the protracted ketonaemia.²

According to our findings, an interplay between ethnicity and ketogenesis cannot be excluded. Even though our sample size was small to identify statistical differences, almost half of our sample consisted of patients with African or Afro-Caribbean descent,¹⁰ which might explain at least in part the profound ketonaemia on admission. Our study differs from previous reports, which were limited to single ethnicity.^{3,4,6,8}

Limitations of our study include the small sample size, the cross-sectional design, and the retrospective nature of the analysis. Levels of cortisol and c-peptide were not assessed. The collection of information through review of hand-written medical records might have led to reporting and collection bias.

In summary we report that COVID-19 is associated with hyperglycaemic emergencies in COVID-19 with overrepresentation of type 2 diabetes in patients presenting with DKA and long-lasting ketosis. Further large-scale observational studies are needed to elucidate the diabetogenic effects of COVID-19, and the impact of factors such as medication adherence, glycaemic control pre- and during hospitalization and ethnicity on the development of COVID-19.

Finally, future prospective studies are needed to investigate measures to improve adherence to sickness rules, ketone monitoring and management of DKA-risk, which becomes even more relevant ahead of a predicted second SARS-CoV-2 wave of infection.

We declare no competing interests.

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COVID-19 pandemic highlights racial health inequities

In 1966, Dr Martin Luther King Jr stated, “of all the forms of inequality, injustice in health care is the most shocking and inhumane”. These words remain ever true and relevant in our current climate of health care.

The COVID-19 pandemic has substantially affected health care on a global scale, and has magnified the inequities in access to health care that existed before. This pandemic has highlighted the equity gap in outcomes for marginalised communities, specifically the Black community, as starkly shown by the disparate morbidity and mortality from COVID-19 in individuals from these communities compared with the majority white population.¹ Furthermore, obesity and its associated comorbidities, which disproportionately affect racial or ethnic minorities, have played a

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central role in the severity of COVID-19 in marginalised communities.²

While the obesity epidemic in the USA has continued an upward trend over the last few decades, the number of Black women with obesity also continues to rise and is approximately 40% higher than the number of white women with obesity, and 25% higher than the number of Hispanic women with obesity.³ Surprisingly, only 1% of patients eligible for bariatric surgery (ie, those with a BMI of ≥ 35 kg/m² with obesity-related comorbid conditions, or those with a BMI of >40 kg/m²) actually receive surgical management for obesity.⁴ Racial or ethnic factors, socioeconomic factors, referral bias, and insurance barriers have been well established as contributing factors to inequity in access to this life-saving treatment for obesity.⁵

As bariatric surgeons, our patients seek us out, reporting their weariness in struggling with obesity and its associated diseases, decreased quality of life, weight stigma, discrimination, and shortened life expectancy. As physicians, we took an oath to prevent harm to patients entrusted to our care, yet we have witnessed the inequity of the American health-care system first hand, in which equal access to care is not ubiquitous among all communities, races, and ethnicities. Finally, as Black women, we know all too well that our community is one in which these disparities in access to care are widespread or the quality of care received might be substandard (or both).

Therefore, our oath remains yet unfulfilled. One pandemic has unearthed a second; one of inequity in health care that continues to have a devastating impact on the Black community. With equitable access to health care and by adequately treating the disease of obesity, we can improve the health, and consequently reduce the severity of COVID-19, in these individuals. We are duly bound as a community to address these health disparities immediately, and

to eliminate bias as a barrier to care. After all, these are the very inequities about which Dr King warned. Our bariatric patients need us, and the Black community needs us. We cannot continue to deny these individuals access to a proven procedure that we know can reduce the prevalence of obesity, improve health, and, most importantly, save lives. We must stand in the face of injustice, and work towards equitable health care for all.

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Back to normal? Building community resilience after COVID-19

Although the COVID-19 pandemic is far from over, many countries are resuming economic and social activities, with the aim of returning to some semblance of normality. But what should the new normal be? The pandemic has exposed how the status quo produced uneven vulnerability to COVID-19, with the most disadvantaged groups bearing the greatest health, social, and economic burden. Globally, population groups with higher prevalence of non-communicable diseases (NCDs), such as type 2 diabetes or hypertension, have had higher hospitalisation and death rates.¹ These pre-existing conditions are often framed as the result of individual lifestyle choices. However, viewing variation in risk at an individual level diverts attention from the deeper causes of susceptibility, particularly how socioeconomic inequalities shape health risks. In the USA, for example, rates of diabetes are highest among Indigenous, Latino, and Black people who are subject to economic and social discrimination.²

Research in the fields of developmental origins of health and disease and environmental epigenetics has revealed how adverse social and material conditions during early life increase later risk of NCDs.³ This association accords with insights from the social sciences showing how social structures like racism or socioeconomic deprivation become embodied, shaping health throughout the life course and across generations.⁴ Therefore, social justice is fundamental to promoting health in society—greater resilience to health emergencies requires systemic rather than individual change.

The post-pandemic recovery phase offers opportunities for devising social and public health policies that channel resources to marginalised communities and support