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of COVID-19, overweight and obese populations could have a higher susceptibility to develop severe complications, especially linked to respiratory illness. Studies have shown that obesity is associated with pulmonary complications such as pneumonia.^{3,4} Obesity has a negative effect on both the respiratory function (eg, owing to reduced lung expansion and narrowing airways) and on the immune function and host defense,⁴ both of which are specifically under threat during the time of COVID-19 and during pregnancy. Adipose tissue dysfunction in overweight and obesity can act as a diseased organ (eg, chronic inflammation). Moreover, much is still unknown about how the severity of respiratory viral infections is compounded by overweight or obesity when coupled with other risk factors or pregnancy. This fast spreading virus could highlight the dire consequences of the rise in the rates of overall compromised health compounded by the exploding overweight and obesity rates.

It is important to consider whether the severity of COVID-19 and the associated mortality rates could increase because of a spread into regions with a higher prevalence of overweight and obesity, which may also be applicable to children (areas where childhood overweight and obesity is high). To best support the mandatory global efforts in identifying and defining the most relevant at-risk populations, we strongly suggest that overweight and obesity should be considered as a high potential variable and a comorbidity or risk factor in the general population. ■

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REPLY



We thank Carbillon and coworkers for their perspectives on the optimal dose of chloroquine in pregnancy. The novel use of chloroquine phosphate and hydroxychloroquine in the management of coronavirus disease 2019 (COVID-19) is an area of evolving research. Our rationale for high-dose chloroquine was based, at the time, on expert consensus from the Chinese Ministry of Health and data from the interim analysis of a study by the Health Commission of Guangdong province, China, which supported the use of a twice-daily 500-mg regimen in the clinical management of COVID-19.¹

However, important findings from a subsequent double-masked, randomized phase IIb clinical trial from Brazil ([ClinicalTrials.gov](https://clinicaltrials.gov) number, NCT 04323527) of adults with severe COVID-19 have since demonstrated that high-dose chloroquine is associated with greater toxicity and mortality from QTc prolongation.² Although these results are not generalizable across the COVID-19 disease spectrum, we now caution against the use of high-dose regimens and advise providers to consult their institutional protocols when considering these drugs as a treatment option in pregnancy.

Rancourt and colleagues astutely highlight the influence of body mass index (BMI) on disease outcomes. Although anthropometric data of pregnant women with COVID-19 were not available during the initial stages of the pandemic, obesity is now a well-recognized risk factor for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.³ Cohort studies of nonpregnant adults with COVID-19 and a BMI >35 kg/m² have demonstrated a higher risk for admission to critical care and the need for invasive mechanical ventilation. Similar trends are observed in pregnancy; our recent systematic review of 637 pregnant women with laboratory-confirmed SARS-CoV-2 infection demonstrated a 40% prevalence of obesity and diabetes mellitus among COVID-19–related maternal mortalities reported between December 2019 and May 2020.⁴ Prospective data from the United Kingdom Obstetric Surveillance System in addition reveal that overweight and obese pregnant women with COVID-19 were at least twice as likely to require admission to hospital when compared with those with a BMI <25 kg/m².⁵

It is believed that obesity attenuates cardiorespiratory reserves and amplifies circulating serum interleukin-6 levels; the latter, by instigating a cytokine storm, results in a significantly elevated risk of severe disease and mortality from COVID-19.^{3,4} Pregnant women who are obese and battling COVID-19 would therefore find themselves between Scylla and Charybdis, where gravid physiology and disease pathology collide to encourage progression to critical illness. ■

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Anatomy, histology, and nerve density of clitoris and associated structures: clinical applications to vulvar surgery



TO THE EDITORS: We applaud the publication of “Anatomy, histology, and nerve density of clitoris and associated structures: clinical applications to vulvar surgery” by Jackson et al.¹ The absence of the neural anatomy of the clitoris from obstetrical and gynecologic literature has been a long-standing omission, and it is encouraging to have this information available for dissemination. However, there are a few errors in the study, and we believe that readers of the *American Journal of Obstetrics and Gynecology* would benefit from us pointing these out.

First, labial hypertrophy is not caused by excess androgens. The most common cause of excess androgens in females is congenital adrenal hyperplasia, which is characterized by clitoral enlargement and typically underdeveloped or fused labia minora.² The misconception that labial hypertrophy may be caused by excess androgens needs to cease because there is no evidence to support it, and the perpetuation of the idea that large labia minora are masculine can cause healthy women to seek unnecessary and risky vulvar surgery.

There is also a problem with the illustration in Figure 7. Unlike the penis, the clitoris does not have circumferential skin. In addition, unlike penises, the deep arteries are medial, along the fibrous tissues of the median septum, rather than in the middle of each cavernosa. This is well documented in “Anatomic study of the clitoris and bulbo-clitoral organ” by Lepidi and Di Marino (2014) (Figure 10.1; page 96).³

Another issue is that Jackson et al¹ reported an average glans width of 4 mm, which is not consistent with the average glans length of 8 mm, the same length we reported in our study.⁴ We believe that the length and width measurements are not consistent with the reported measurements and photographs of the cadaveric dissections presented in the article and elsewhere.^{3,4} To elaborate, in the photographs of the cadaveric dissections presented in Figure 4, A, and Figure 6, the clitoral glans is not twice as long as it is wide, suggesting that the width is only slightly less than the length. Furthermore, although the width at the base of the glans was not measured in our study, we did measure the clitoral body diameter where the dorsal nerves terminally arborized near the glans. Our data suggest that the glans is just slightly longer than it is wide.⁴

We would like to respectfully suggest that there was an error in calculating the mean clitoral glans width because the range in this study is 3–10 mm, whereas the reported average is 4 mm. None of the other distributions reported thus far are this skewed.

Overall, the study by Jackson et al¹ is a monumental and long-overdue contribution to female genital anatomy and should be cited and circulated as much as possible in the obstetrical and gynecologic literature. For that reason, we wish for it to be accurate. ■