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EDITORIAL

What should patients be told about obesity-related risks?

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Currently, in the United States, 50% of women in the reproductive age are overweight or obese, similar to the broader population. Obesity is associated with adverse birth outcomes compared with births among non-obese women.[1] These outcomes include gestational and pre-gestational diabetes, hypertensive disorders, prolonged/abnormal labor and cesarean birth, macrosomia, and wound complications. Compounding these risks, approximately 63% of overweight and 46% of obese women gain more than the recommended amount of weight during pregnancy.[2] As prenatal care providers, we have a unique opportunity to educate and counsel our patients about weight-related risks, but the optimal way to do this remains unclear.

In this month's journal, there are three papers related to obesity in pregnancy. Aly *et al*.[3] demonstrate that the rates of obesity and morbid obesity are increasing in their urban population. They also find that although obese women are more likely to deliver preterm, when controlled for co-morbidities such as diabetes and hypertension, this effect dissipates, leaving no residual increase in preterm birth among obese women. In a review of obesity and inflammation, Schmatz *et al*.[4] describe potential inflammatory pathways that may be enhanced in obese women leading to some of the potential complications that arise during pregnancy.

In addition, a third study by Kominiarek *et al*.[5] studied women's knowledge of obesity-related birth risks among a cohort of low-income, inner-city pregnant women. Half of the women were aware that obesity increased the overall birth risk, and obese women were more likely than non-obese women to be aware that obesity increases the risk of gestational diabetes. However, less than half of the obese women were aware that obesity increases the risks of stillbirth, fetal growth problems and cesarean birth. Further, some of the knowledge differences varied by race/ethnicity. Although it is true that the magnitude of the effect of obesity on perinatal outcomes does vary by race/ethnicity, it tends to uniformly lead to worse outcomes.[6] Among morbidly obese women in Aly's cohort, the risk of cesarean birth was nearly 50%, consistent with other studies. Hence, morbidly obese women should be counseled that this is a likely outcome of their pregnancy.[3] Obesity also reduces the likelihood of successful vaginal birth after cesarean;[7] therefore, this information should be provided when counseling obese women who have had a cesarean previously.

As most experts do not believe that significant weight loss *during* pregnancy is safe, it might be argued that the discussion of obesity-related risks during prenatal care serves no purpose other than to cause anxiety for the patient, because pre-pregnancy body mass index (BMI) is not modifiable once a woman conceives. However, knowledge of obesity-related risks might motivate women to make healthful modifications to diet and exercise behaviors, possibly lessening the risk of excessive weight gain during pregnancy and thus reducing obesity-related risks during and after pregnancy. The Institute of Medicine issued new recommendations for weight gain in pregnancy for obese women in 2009, advising women with BMI $\geqslant 30\,\mathrm{kg\,m^{-2}}$ to gain 11 to 20 lbs. This recommendation generated some controversy, as some experts believe lower gain (0 to 5 lbs, or even weight loss) to be preferable for obese women.[8] The results of upcoming large randomized trials of restricted weight gain for obese women will hopefully resolve this controversy.

In spite of the strong evidence linking excessive weight gain with adverse pregnancy outcomes, it appears that prenatal care providers often fail to advise women about the risks of weight gain during pregnancy. In two cohort studies, about a third of pregnant women reported having received no advice about how much weight to gain.[9,10] Receiving weight gain advice consistent with the guidelines early in pregnancy was predictive of weight gain within the guidelines. Hence there is evidence that such advice is actually helpful. Herring *et al*.[11] surveyed 58 prenatal care providers in Massachusetts and found that providers had poor adherence to the American Congress of Obstetricians and Gynecologists guidelines on care of obese women during pregnancy. Only 41% of providers 'almost always' discussed the risks of obesity in pregnancy with their obese prenatal patients. Why do many providers fail to discuss the risks of obesity and weight gain with patients during prenatal care? Obesity and weight gain are sensitive topics for both patients and providers. In our qualitative study of 52 prenatal care providers in the San Francisco Bay Area, providers discussed their varied approaches to counseling obese patients.[12] Some providers found it helpful to present women directly with the risks of obesity and excessive weight gain. Others were very hesitant to even discuss the topic of weight with patients unless the woman brought it up first, for fear of causing offense, shame or anxiety. It appears that clinicians are more comfortable discussing sexual behavior and the use of illicit drugs than weight or diet. In spite of this difficulty, we must strive to provide sensitive, honest and effective counseling regarding obesity and weight-gain-related risks, and not allow our fear of the topic to deprive our patients of valuable information.

Of note, 76% of the women in Kominiarek's study desired more information about obesity-related risks after learning the correct

answers to the knowledge questions in the survey, and 75% were interested in a preconception weight loss study. Indeed, as providers, we need to seek out opportunities to give preconception counseling, as the only way to prevent obesity-related pregnancy complications is to improve BMI before conception. The postpartum visit is one example of an opportunity, often overlooked, for obstetricians to counsel women about losing weight before their next pregnancy. The women in Kominiarek's study tended to underestimate the weight that they would need to lose to achieve a normal BMI. One might argue that this is not necessarily a bad thing. A weight loss of 10% or even 5% of the body weight is associated with improvements in health, and most weight loss interventions do not achieve more than this amount of loss.[13] When providing pre-conception obesity counseling, it may be encouraging for both provider and patient to acknowledge that smaller weight loss goals are beneficial as well as achievable.

The obesity epidemic is in full swing, and both providers and our public health system must team up to address the problem. In our culture of 'Super-size me' consumption and governmental subsidies of high-fructose corn syrup, we need to attack this issue with a clear health-system-wide approach ranging from pediatricians to geriatricians. As a society, increased incentives to encourage improved health behaviors could also be utilized; why not subsidize gym memberships and personal trainers? What about a surgeon general warning label on highly processed foods regarding the health risks? While such public health strategies are critical to reducing the society-level causes of obesity, prenatal care presents a unique opportunity for clinicians to influence the weight and health of both mother and child. Pregnant women may be more motivated to make behavioral changes for the sake of the baby, and the frequency of prenatal visits allows providers to closely support and monitor such changes. As obstetricians, we are in a special position to impact the obesity epidemic, and we should not overlook our responsibility of counseling individual patients.

Conflict of interest

The authors declare no conflict of interest.

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