

IVF Nursing

NEWSLETTER SERIES

Weight management and ART: Strategies for improved outcome

Christina Portela-Dias is interviewed by Carol Lesser, Editor of this newsletter series

EDITOR'S NOTE

A tipping point: Addressing BMI with infertility patients



Carol B. Lesser,
MSN, RNC, NP

Several stellar lectures at the 2011 ASRM Annual Meeting in Orlando, Florida, delivered a clear message: The rising incidence of obesity is affecting the outcome and level of risk for patients undergoing in vitro fertilization (IVF) procedures. I came away feeling that the field of assisted reproductive technology (ART) has reached a tipping point with respect to body mass index (BMI) and IVF. The *tipping point* concept is borrowed from epi-

demiology; it refers to the moment in an epidemic when an infective agent reaches a critical mass and represents a true public health risk.

While our mission as reproductive endocrinology and infertility (REI) nurses is to assist those in need of precreative assistance, our primary mission as nurses is to do no harm. Providing ART care to high-risk patients is problematic, and offering IVF in the setting of a significantly elevated BMI may inadvertently place a patient in harm's way.

Obviously, the adverse health effects of obesity reach beyond ART centers. Obesity, with its comorbidities of hypertension, hyperinsulinemia, type 2 diabetes, and gestational diabetes, is at the forefront of a national conversation that's wrestling with a broken health care system, sky-rocketing costs, and concern for the population's health and well-being.

Unfortunately, obesity is a difficult problem to reverse. The United States is a fast-food nation with a multi-billion dollar food industry that produces highly processed, high-calorie foods. The population has become increasingly sedentary; with our smart phones, personal computers, and digital

tablets, we scarcely need to leave our chairs to satisfy our questions or needs. This lowers the incentive and opportunity to exercise. And, we are eating out more frequently—a risk factor for weight gain—and are less often consuming nutritious, home-cooked meals, which offer some control over portion size and ingredients. If such lifestyle trends continue, 40% of Americans will be obese by 2018.¹

If the health benefits of weight loss are not enough to incentivize patients to lose weight, perhaps examining the relative IVF success rates based on BMI can provide motivation. Data from the Society for Assisted Reproductive Technology (SART) show that a BMI greater than 30 kg/m² is associated with a higher cancellation rate and reduced pregnancy rate with autologous cycles, and a BMI greater than 25 kg/m² is associated with a reduced live birth rate.² In Massachusetts, several insurance companies mandate that patients with a BMI greater than 35 kg/m² have a nutrition consult prior to treatment with ART therapies in an effort to encourage weight loss and a higher success rate.

So, how do we help our patients achieve reasonable weight loss in a reasonable period of time, given that many are also battling the issue of advanced maternal age and feel they have little reproductive time to spare? Keep in mind that patients who are denied care may “clinic shop” to find a physician with less restrictive criteria.

Our goal should be to help infertility patients who are overweight/obese achieve weight loss efficiently so they can enter into appropriate treatment as soon as possible. To accomplish this, ideally, ART centers would have a weight loss/nutritional program for these patients. Simply telling a patient

Carol B. Lesser, MSN, RNC, NP, is a Nurse Practitioner at Boston IVF, Boston, MA. **Christina Portela-Dias, RN**, is a nurse manager at Reproductive Medicine Associates of Connecticut, Norwalk, CT.

This supplement is supported by



EDITOR'S NOTE *continued*

to lose weight is ineffective; we need to provide the education and the strategies that will help them do so. In a recent comparative effectiveness trial of obese patients recruited from primary care practice, Appel and colleagues found that supervised behavioral weight loss interventions worked significantly better than a self-directed approach.³

Because many overweight infertility patients have polycystic ovary syndrome (PCOS), this disorder deserves special attention. Counseling these patients about how PCOS can inhibit ovulation and the contributory role of diet and high BMI can be one of the most gratifying nursing interventions. These women finally understand what has been plaguing them for so long, sometimes for years. With knowledge, change becomes possible. For many, it is the first step.

In this issue's interview, nurse manager Christina Portela-Dias, RN, describes the weight loss and PCOS support program at her center, Reproductive Medicine Associates

of Connecticut. Nurses, dietitians, and other team members work together to provide seminars that instruct patients on the reproductive and health challenges associated with elevated BMI and practical ways to change how they approach eating and exercise. This successful program can serve as a model for other centers planning to develop a similar approach.

References

1. American Public Health Association. 20-year analysis by America's Health Rankings™ finds US making successful strides in disease treatment, but not prevention. Available at: www.apha.org/about/news/pressreleases/2009/ahrrelease2009.htm.
2. Luke B, Brown MB, Missmer SA, et al; Society for Assisted Reproductive Technology writing group. The effect of increasing obesity on the response to and outcome of assisted reproductive technology: a national study. *Fertil Steril*. 2011;96(4):820-845.
3. Appel LJ, Clark JM, Yeh HC, et al. Comparative effectiveness of weight-loss interventions in clinical practice. *N Engl J Med*. 2011;365(21):1959-1968.

Weight management and ART: Strategies for improved outcome

An interview with Christina Portela-Dias by Carol Lesser



**Christina
Portela-Dias, RN**

Ms Lesser: Christina, how long have you worked at your current center, and how did you become involved with the diet and nutrition classes in your program?

Ms Portela-Dias: I have worked at my center since 1998, initially as a per diem nurse in the Recovery Unit and, for the last 4 years, as a nurse manager. Our nutrition program was started to

provide comprehensive care for our patients with polycystic ovary syndrome (PCOS). Further, we believed we were losing overweight patients to follow-up.

It soon became a priority in our practice to have patients reach a healthy weight prior to initiating a treatment cycle. We hired a nutritionist with a background in endocrinology and began to offer our patients nutrition classes, which range from preconception seminars to grocery shopping tours that help patients decode food labels. All our nurses motivate their patients to participate in these classes and educate them on the benefits of attending.

Ms Lesser: Many nurses have experienced the frustration

of working with a patient who has a chronic weight problem and who, despite repeated instructions to lose weight before treatment, is unable to do so. We realize how difficult it is for most people to lose weight and that infertility patients have the added pressure of desperately wanting IVF treatment in order to have a child. Does your center require attendance at seminars or merely suggest participation?

Ms Portela-Dias: Our physicians strongly encourage our patients to attend the preconception seminar, which focuses on health and lifestyle changes that can be made to help optimize fertility. The nurses and patient coordinators also reinforce the value of attending the seminar, usually within a month of their initial visit. If the physician believes that a nutrition consult is warranted, or if patients are interested in seeing our nutritionist, they must fill out a nutrition questionnaire and obtain necessary blood tests before making the appointment.

Ms Lesser: Do you have a strict cutoff for body mass index (BMI) beyond which IVF is not offered?

Ms Portela-Dias: We are concerned about anesthesia risks in a subset of patients. Any patient with a BMI of ≥ 40 kg/m² will require an anesthesia consult prior to

initiating an IVF cycle. In addition, she may be required to obtain a letter of clearance from her internist and maternal-fetal medicine specialist.

Patients with a BMI >35 kg/m² are encouraged to see our nutritionist to achieve a healthy weight before proceeding with their cycle. The time frame varies for each patient. It's not uncommon for patients to follow up with our nutritionist for a few months before initiating a treatment cycle.

We have recently encountered some challenges in managing patients who have a borderline BMI, and we have tightened our protocol to identify patients at high risk so they can be managed more effectively.

Ms Lesser: It has been well documented that diets don't work for most individuals, especially in the long term. How does your program help patients set measurable, attainable, and realistic weight loss goals?

Ms Portela-Dias: We encourage patients to participate in 30-minute office visits with our nutritionist. Follow-up visits are treatment specific. Some patients will benefit from weekly visits, but the majority of follow-ups are every 2 to 3 weeks. Discussions cover and assess the patient's activity level, meal planning, sleep habits, and body composition. Weekly goals are established and evaluated. Measurable data include changes in body composition, blood work values, blood pressure, and inches lost. Patients are supported and educated on how optimizing their health will improve their fertility outcome. Patient problem-solving steps and goals are patient focused through motivational interviewing and behavior techniques.

Weight loss progress is attainable with a non-diet, non-food restrictive approach. An initial and realistic weight loss goal of 5% to 10% is achievable for most patients. Counseling and support is ongoing and involves many factors. We focus not on weight, but rather on the consistent healthy lifestyle behaviors that contribute to weight loss and improved health.

Ms Lesser: Please describe the various seminars that you offer.

Ms Portela-Dias: Our most highly attended seminar is the preconception seminar, which focuses on lifestyle changes to help increase fertility. Discussions include preconception nutrition, environmental concerns, and the health of both partners. PCOS seminars are also well attended. In these, we talk about the causes of PCOS, its impact on physical and emotional health, and the critical role that nutrition and lifestyle changes play in managing this disorder.

Another informative seminar, "Nutrition and lifestyle tools for fertility success," educates patients regarding the so-called fertility diet, secrets to meal balancing, how to read food labels, and male and female body composition. We also offer a seminar for patients who are newly pregnant. It covers the key components of a health-promoting lifestyle during pregnancy.

Ms Lesser: In what ways have you made your center friendlier toward patients with a weight issue?

Ms Portela-Dias: Patients who are referred for weight management counseling are weighed privately, and our nutritionist talks about body composition rather than "weight." Weight is measured on our body composition analyzer scale. Besides calculating BMI, we measure basal metabolic rate, body fat percentage, fat free mass, and total body water. It is important to note that BMI doesn't take into account large muscle mass; another concern is that a normal-weight individual with little muscle mass could have a low BMI but a higher percentage of body fat.

For the patient examination, it is useful to have a large blood pressure cuff readily available, thus avoiding the need to switch after trying a regular-size cuff first. Using cloth drapes instead of paper can be more appropriate. In the waiting room, it is helpful to provide healthy lifestyle literature, such as select educational nutrition newsletters and cookbooks.

Most important, we educate staff members regarding weight bias and how to treat all patients respectfully. We recently had a lecture that included role playing to demonstrate how to effectively communicate with patients.

Ms Lesser: We often don't consider that obesity also affects male reproductive function. Elevated BMI is associated with diabetes, vascular and endocrine problems, and decreased libido—all of which can affect sperm parameters and sexual function. Are your seminars offered to men too?

Ms Portela-Dias: Our patients are encouraged to bring their partners, which often leads to an individual counseling session with our nutritionist. We have diagnosed diabetes or insulin resistance in patients' partners, and have referred many to their own internists/endocrinologists for appropriate management. We have also offered a seminar strictly for male partners, called "Guy Talk." This seminar addresses lifestyle behaviors that may affect conception and reviews how body weight, high cholesterol, and certain medications may impact a man's fertility.

We focus not on weight, but rather on the consistent healthy lifestyle behaviors that contribute to weight loss and improved health.

Ms Lesser: What feedback do you receive from patients regarding the classes?

Ms Portela-Dias: Some patients are resistant to attending the seminars because they feel like it is “one more thing to do,” and ultimately they do not attend. Of the patients who do attend, they routinely rate the seminars as “very good” or “excellent” on an anonymous evaluation form. Because we realize that new patients are inundated with information on their initial visit, we have a patient coordinator contact the patient 2 weeks later to review next steps and put her on the list for the next preconception seminar. Most patients welcome the opportunity to learn more about improving their health and take advantage of the tools that may help them achieve their fertility goals.

Ms Lesser: What do you consider the most helpful part of your program for patients?

Ms Portela-Dias: I think the most helpful feature is that our practice’s nutrition program is in-house, and it is seen as an extension of patients’ treatment. For example, since we started testing hemoglobin A_{1c} levels on all patients, we have identified many who are insulin resistant but who don’t have any of the traditional diabetes risk factors (overweight, family history, history of gestational diabetes, etc). With our in-house program, we can refer them to our nutritionist early on, in our facility, and we can potentially decrease the patient’s risk of developing diabetes later in life or during their pregnancy. The nutritionist provides the patient’s physician and nurse with progress updates and relays any concerns so that the patient receives comprehensive care. They don’t need to go outside of our office to seek treatment or pay for an appointment out of pocket—two barriers to many people.

Ms Lesser: Eating has a strong emotional component, and many studies link mild depression with elevated BMI. Does your program include a role for a mental health care provider?

Ms Portela-Dias: Our nutritionist and psychologist have

combined to co-lead PCOS support groups. There is a cross-referral system between the nutritionist and psychologist, such as the case of some underweight patients who have an eating disorder. Nurses often become the patient’s primary support system, and it is important

for us to remember that many overweight patients have struggled with their weight for years, and that any discussion about weight needs to be conducted in an honest, compassionate manner. Nurses also need to know when a patient might benefit from therapy and recommend that she talk to a mental health provider.

Ms Lesser: Is your program planning to make any changes or additions this year to improve its offerings or to

encourage higher participation?

Ms Portela-Dias: Yes, we will be offering basic cooking classes for patients. Many patients don’t know how to roast a chicken or plan meals for the week, and they eat out most nights. We are purchasing some additional body composition scales for the exam rooms so that we can weigh patients privately and discreetly. We are also talking to referring ob/gyns about the challenges of overweight patients seeking fertility treatments and how we can collaborate with them to encourage patients to make lifestyle changes that will result in a healthy pregnancy and baby.

Ms Lesser: Christina, thank you for sharing your experience with us. We applaud all of the nurses and staff at your center for encouraging the rest of us to address this important issue affecting our patients.

DISCLOSURES

Carol B. Lesser, MSN, RNC, NP, reports that she has served as a consultant and on the Speakers Bureau for Watson Pharmaceuticals. She received compensation from Watson for her participation in preparing this newsletter.

Christina Portela-Dias, RN, reports that she has no commercial or financial relationships from any sources. She received compensation from Watson for her participation in preparing this newsletter.

I think the most helpful feature is that our practice’s nutrition program is in-house, and it is seen as an extension of patients’ treatment.

Comments or questions for Carol Lesser? Email your thoughts to SRMnurses@QHC.com

Resource

CENTER FOR SCIENCE IN THE PUBLIC INTEREST

Consumer advocacy organization that conducts research and advocacy programs in health and nutrition and provides consumers with information on health and nutrition topics. Publishes the “Nutrition Action Healthletter.”

www.cspinet.org