Fertility Preservation for Cancer Patients

Background

In the United States, approximately 160,000 people between ages 0-44 are diagnosed with cancer each year. Due to improvements in treatment, about 85% these patients will survive. Some cancer treatments, however, can cause infertility. Chemotherapy, radiation, and surgery can damage reproductive cells (eggs and sperm), reproductive organs, and/or endocrine functioning; they can also impact the ability to carry a pregnancy.

Because this damage treatment-based, it can affect patients with any type of cancer. Patients with other conditions requiring similar therapies (e.g., sickle cell anemia, lupus, and thalassemia, etc.) are also at risk. In this age group, concerns about family building are second only to mortality, and infertility after cancer causes depression, anxiety, and lower quality of life.

Standard of Care

Fertility preservation is now considered part of the standard of care for age-eligible patients. Guidelines addressing fertility preservation from all of the relevant medical associations, including the American Society of Clinical Oncology (ASCO), the American Society for Reproductive Medicine (ASRM), and the American Medical Association (AMA) have been published.

Options

There are options to protect or preserve reproductive potential before cancer treatment begins. First, techniques to minimize damage such as testicular shielding, ovarian transposition, or the use of fertility-sparing surgeries for certain cancers may be available. Second, removing, freezing, and storing gametes (eggs and sperm) outside of the body protects them from chemo- and/or radiation-induced destruction.

Standard procedures currently include sperm, egg, and embryo banking for post-pubertal patients, and ovarian tissue cryopreservation for pre- or post-pubertal females. Testicular tissue cryopreservation is the only option for pre-pubertal boys, but it remains experimental.

Access

Patient access to these services can be limited by several factors, including geographic availability of the services, urgency to begin cancer treatment, and, most significantly, cost. Nationwide, costs can range from several hundred dollars for sperm banking to approximately $15,000 for egg banking. Without insurance coverage, these treatments are unaffordable for many patients. Since 2017, more than 30 states have recognized the need for this coverage and have introduced bills; twelve states have enacted coverage laws.

For interested patients, urgent referral for consultation with a fertility specialist before treatment begins is highly recommended. To find fertility preservation services near you, please visit fertilityscout.org.