



Is Fertility a Dream for Cancer Patients?

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With the aim of early diagnosis of cancer and considerable advancements in its treatment, 5-year survival rate was increased 80% for young oncological patients in recent years (1).

Oncological therapies including extensive chemotherapy and radiotherapy are known to be highly ovotoxic and frequently result in early ovarian failure and subsequent infertility (2). Children who get chemotherapy or radiotherapy are at approximately 30% risk of developing gonadal dysfunction (3). Chemotherapeutic drugs, particularly alkylating agents, alter DNA replication and cell division, massively activate the primordial follicles, and cause follicular atresia (4). Radiation is harmful to oocytes and even a dose of less than 2 Gy can destroy 50% of primordial follicles.

Options for preserving fertility in cancer patients include in vitro maturation of oocytes, cryopreservation of oocyte, sperm, embryo or ovarian tissue, and fertility-preserving surgery (5). Single oocyte or embryo freezing with a conventional ovarian stimulation protocol continues at least two weeks and this may delay the initiation of adjuvant chemotherapy or radiotherapy. Therefore, random start stimulation of ovary at any time during menstrual cycle is essential for onco-fertility patients. Dual stimulation also provides more oocytes and embryos in a short time by capturing 2-3 follicle waves in the same menstrual period. In conclusion, infertility due to cancer treatment is not an inevitable end. Fertility preservative procedures before the initiation of oncological treatments, may help these patients to get pregnant after cancer therapies.

Conflict of Interests

None.

Derya Özdemir Taş graduated from Afyon Kocatepe University Faculty of Medicine in 2015. Between 2016 and 2019, she completed her specialization in the Department of Histology and Embryology in Ankara University Faculty of Medicine. She has been working as Histology and Embryology Specialist at Ankara Bilkent City Hospital Assisted Reproductive Technology Center since 2019. Her current research interests focus on in vitro fertilization, reproductive biology, gamete, and embryo cryopreservation.



Ethical Issues

Not applicable.

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