FERTILITY AFTER BREAST CANCER TREATMENT

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Major advances in diagnosis and treatment of breast cancer (BC) have reduced mortality, resulting in a majority of patients as long-term survivors. In many modern countries of the developed world, there is an increasing trend toward delay in childbearing from 30 to 40 years of age. Improvement of diagnostic and therapeutic methods is unfortunately concordant with the increasing incidence of BC in women who have not yet completed their family. The aim of this review is to summarize current knowledge about fertility following BC treatment and fertility options for such young women desiring pregnancy. Peer-reviewed journals and original articles from peer-reviewed journals published in English were searched in PubMed using the terms “breast cancer” and “childbearing or fertility options”. Current choice for premenopausal women is an adjuvant therapy, which includes cytotoxic chemotherapy, ovarian ablation (by surgery, irradiation, or chemical ovarian supression), anti-oestrogen therapy, or any combination of these. Although the use of adjuvant therapies with cytotoxic drugs can significantly reduce the mortality in the majority of young women with BC, it raises issues of the long-term toxicity, and fertility impairment. The most successful techniques for fertility preservation in BC patients are cryopreservation of oocytes and embryos. Ovarian suppression with gonadotrophin releasing agonists, cryopreservation of immature versus mature oocytes, and cryopreservation of ovarian tissue are considered experimental and should only be offered as a clinical trial. In spite of the encouraging results regarding long-term survival and more than half of women with BC desiring pregnancy only 10% undergo preserving fertility, a relatively small percentage became pregnant, because barriers against fertility preservation still are high among BC patients, oncologists, and fertility specialists. Therefore, early pretreatment consultation including an interdisciplinary approach may be useful and both the oncology team and fertility specialists may be are recommendable.