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CONTRACEPTIVE USE AND COUNSELING IN YOUNG WOMEN WITH BREAST CANCER

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ABSTRACT

Background: Contraception is very challenging for reproductive-aged breast cancer patients, due to limitation in nonhormonal options**.** Contraceptive methods used by this population are very heterogeneous and may be insufficient, resulting in an increased risk for unwanted pregnancy. **Methods**: This is a survey conducted in reproductive-aged breast cancer patients at the Department of Medical Oncology at the National Institute of Oncology of Rabat - Morocco. It is an analytical study of contraceptive methods used before diagnosis, during and after cancer treatment, what identifies the level of contraceptive counseling. **Results**: 104 young patients with breast cancer respond to the survey. The mean age was 39 years. 78% of the cases had a localized disease and 22% were metastatic. 87% had received treatment and 13% were under surveillance. Sexual activity was maintained in 62% of the cases. 91% used contraception before the diagnosis of breast cancer. After the diagnosis was announced, 67% used contraception. 74% of patients were informed that hormonal contraception is not recommended. This information was received from medical staff in 89% of cases. 48% were informed when the diagnosis was announced, 29% before the start of chemotherapy, 15% during chemotherapy and 8% at the end of treatment. **Conclusion**: Reproductive-aged patients require contraceptive counseling after newly diagnosed breast cancer. Contraceptive counseling should be tailored to the needs, concerns, and history of cancer for each patient. Given the lack of information regarding contraception for these patients, oncologists in collaboration with gynecologists should ensure proper contraceptive counseling for better quality of care.

KEYWORDS: Breast cancer, Young patients, Contraception.

INTRODUCTION

Contraception is particularly challenging in women with breast cancer, as their choices are limited to nonhormonal options.[1,2] Contraceptive methods utilized by this population are very heterogeneous and tend to be insufficient, resulting in a substantially increased risk for unwanted pregnancy.[3] Cancer treatments, especially chemotherapy and hormonal therapy, may have detrimental effects on ovarian function, it does not preclude the possibility of pregnancy during treatment.[4] Despite the low incidence of pregnancy in this population, significant morbidity related to fetal teratogenicity or maternal delay of treatment exists.[5,6]

Women with cancer have unique reproductive needs and contraceptive method selection can be difficult. Hormonal contraceptives are contraindicated for survivors during the first 5 years after breast cancer regardless of hormone receptor status.[7] Therefore, contraceptive counseling and adherence have significant importance and the potential to facilitate the selection of safe contraceptives that will prevent unintended pregnancy across the cancer care continuum.[8,9] It is imperative that reproductive aged breast cancer patients receive accurate counseling to help them make informed contraception decisions. The aim of the current study was to explore contraceptive use in young women with breast cancer before, during and after cancer treatment, and assess the impact of contraceptive counseling on the methods they selected.

METHODS

This is a survey conducted in reproductive- aged breast cancer patients at the Department of Medical Oncology at the National Institute of Oncology of Rabat - Morocco. It is an analytical study of contraceptive utilization. First, we analyzed contraceptive methods used by young patients before diagnosis, during and after cancer treatment. Secondly, we assessed the level of counseling about contraception for these patients and its impact on the contraceptive choices. The SPSS 10.0 software was used for statistical analysis.

RESULTS

104 young patients with breast cancer respond to the survey. The mean age was 39 years. 78% of the cases had a localized disease and 22% were metastatic.

87% of cases had received treatment: 47% under chemotherapy, 29% under trastuzumab, 24% under hormone therapy and 13% of cases were under surveillance.

62% of cases had amenorrhea while 38% of cases still having menstruations.
The sexual activity was maintained in 62% of the cases, decreased in 22% of the cases and stopped in 16% of the cases.

91% used contraception before the diagnosis of breast cancer. The methods used were: 91% oral contraception, 7% intrauterine system and 2% masculine condom.

After the diagnosis was announced, 67% used contraception: 23% oral contraception, 16% intrauterine system and 61% masculine condom or external ejaculation. The reasons for contraception were: 52% did not want to have children, 35% were afraid of fetal malformation and 13% were afraid of the course of the disease.

Table 1: contraception before and after announcement of diagnosis and used methods.

	% patients with contraception	% patients without contraception	Contraceptive methods
Contraception before the diagnosis	91	9	91% oral contraception 7% intrauterine system 2% masculine condom
Contraception after announcement of diagnosis	67	33	23% oral contraception 16% intrauterine system 61% masculine condom or external ejaculation

As for the level of information on contraceptive methods, 74% of patients were informed that hormonal contraception is not recommended. This information was received from doctors in 89% of cases, 4% from nurses, 5% from entourage and 2% from the Web. 48% were informed at the moment of announcement of diagnosis, 29% before starting of chemotherapy, 15% during chemotherapy and 8% at the end of treatment.

Table 2: Source and timing of the information.

information source	information timing
doctors 89% nurses 4% entourage 5% Web 2%	moment of announcement of diagnosis 48% before starting of chemotherapy 29% during chemotherapy 15% at the end of treatment 8%

Only 38% of our patients asked about contraceptive methods after diagnosis. The reasons for not asking about contraception were: sexual abstinence in 28% of cases, presence of amenorrhea in 15%, the disease is more important than contraception in 20%, ignore that you have to ask in 32% and carefree in 5%.

After information about contraceptive methods, 56% used a masculine condom, 19% external ejaculation, 13% copper IUD and 12% sexual abstinence.

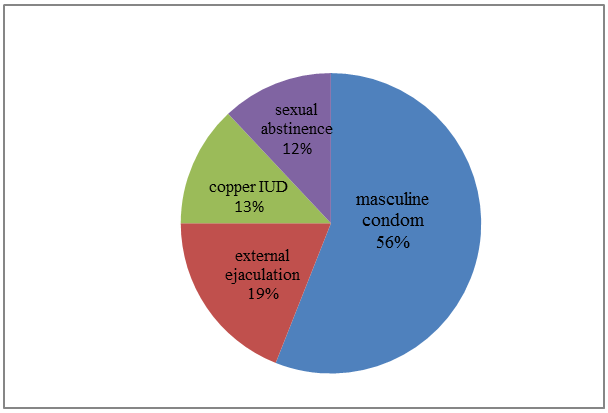

Figure 1: contraceptive methods after information.

DISCUSSION

Breast cancer is the most frequent cancer among women with an estimated 2.1 million new cancer cases worldwide in 2018 (25% of all cancers).[10] The survival rates of women with breast cancer have improved

significantly because of effective treatment modalities.[11] Further steady improvement in these rates is expected, leading to increasing numbers of breast cancer survivors who will be more interested than ever before in quality-of-life issues.[12]

During treatment, pregnancy is strongly discouraged because of the increased likelihood of miscarriage and major birth defects after exposure to chemo- and radiotherapy during the first trimester.[13] In the youngest population, fertility may persist and because amenorrhoea related to chemotherapy does not necessarily mean complete ovarian failure, it is mandatory to provide effective contraception.[14]

However, addressing the topic of contraception is complex for young women with breast cancer because the currently available contraceptive methods are heterogeneous and nonhormonal options are limited.[15,16] The available WHO recommendations on contraception contraindicate any hormonal contraception during breast cancer treatment. This includes the pill, patch and vaginal ring, as well as progestogen-containing contraceptives (oral, injectable, implants and LNG-IUS).[17] In women more than 5 years after their diagnosis, use of these contraceptives is classified by the WHO MEC as category 3 (a condition where the theoretical or proven risks usually outweigh the advantages of using the method).[17] Use of COCs is also contraindicated because of the risk of thrombotic events during treatment and because of a potential risk of recurrence. Progestogen-only contraceptives are also considered as being contraindicated or not recommended.[18]

Thus, the Society of Family Planning recommends the copper IUD as a safe and highly effective contraceptive method for women with a history of cancer.[19] In addition, the USMEC places breast cancer patients use of copper IUDs in category 1 which means BA condition for which there is no restriction for the use of the contraceptive method.[7] The copper IUD does not interfere with any drugs and the risk of infection during chemotherapy for breast cancer is relatively low and does not contraindicate its use. In women with adenomyosis or heavy bleeding or with contraindications or poor tolerance to the copper IUD, use of the LNG-IUS should be discussed.[14]

A published data from the National Survey of Family Growth (NSFG),[20] intended to represent all reproductive-aged women in the United States, highlight the underutilization of LARC in our population. Finer et al. note that NSFG data demonstrate a steep rise in LARC use, which is “nearly synonymous” with IUD use to 8.9% in 2009.[21] In our study, 13% of participants utilized a copper IUD.

Barrier methods may be used, but their limited efficacy is a major concern if pregnancy must be stringently controlled during breast cancer treatment. Condoms or diaphragms may be used, however, if the woman has had good compliance with them in the past, taking into account her fertility and age.[14] The most common contraceptive method utilized by our patients was masculine condom in 56% of cases.

The United States Medical Eligibility Criteria (USMEC) for contraceptive use rates condoms and copper IUDs as the only safe options for women with a history of breast cancer within 5 years. After 5 years, the classification changes for BUSMEC 4: A condition that represents an unacceptable health risk if the contraceptive method is used to USMEC 3: a condition for which the theoretical or proven risks usually outweigh the advantages of using the method.[7]

Female or male sterilisation may also be discussed in couples who do not wish to have another pregnancy, as sterilisation has high efficacy and no impact on breast cancer. This method was not used by our participants.

Contraceptive choices are likely multifactorial, with sexual activity and cancer diagnosis impacting women's practices most. While age was not independently associated with contraceptive choice, it is correlated with educational status and cancer diagnosis, making it difficult to disentangle the independent contributions of each factor.[22]

It is imperative that breast cancer patients receive accurate counseling to help them make informed contraception decisions. However, little is known about the timing and content of the contraceptive counseling that they receive from their various clinicians. Thereby, many patients used inappropriate selection of contraceptive methods. The reasons, according to some authors, might include misinformation and lack of information on contraceptive options and risks, delayed discussions of contraceptive needs, limited guidance on family planning, lack of focus by health care professionals on reproductive health, and peers being trusted as a source of contraceptive information.[23]

Data regarding contraceptive practices and counseling in reproductive-aged women with cancer are scant. Several studies highlight that health care practitioners do not address the reproductive needs of women with cancer,[24,25] Prior studies revealed that only 56–65% of reproductive-aged survivors received contraceptive counseling after their cancer diagnosis,[9,15] A retrospective chart review of 211 reproductive-aged female breast cancer patients receiving chemotherapy treatment at a university cancer center revealed that only 10% had documented contraceptive counseling,[26] This may be explained in part by the fact that young women account only for 5- 10% of breast cancer patients. Furthermore, many premenopausal patients are already using effective non-hormonal methods at the time of diagnosis.[16] In our study, 74% of patients were

informed, mostly by doctors, that hormonal contraception is not recommended, of which 48% were informed at the moment of announcement of diagnosis. However, patients may be only receiving contraceptive counseling to avoid hormonal methods but may not be getting additional counseling about methods that are effective and consistent with individual desires.

CONCLUSION

Contraception is a crucial aspect of reproductive care for women with breast cancer. Thus, a large proportion of reproductive-aged patients require contraceptive counseling after newly diagnosed breast cancer. Contraceptive counseling should be tailored to the needs, concerns, and history of cancer for each patient. Given the lack of information regarding contraception for these young women, oncologists in collaboration with gynecologists should ensure proper contraceptive counseling for better quality of care. Furthermore, it is imperative to develop educational strategies to improve knowledge among patients about effective use of contraceptive methods and risk of pregnancy during breast cancer treatment.

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