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Review

Prophylactic mastectomy and ovariectomy—a religious perspective

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Prophylactic mastectomy and ovariectomy doesn't seem to be a religious problem at first, therefore not much research on the subject has been done so far. As the awareness of the problem of breast and ovarian cancer threat and subsequently of the issue of prophylactic procedures for *BRCA* carriers is growing among general public, it is worth to ask the question if and in what way religion itself as well as religious communities may help. The article explores the impact of religious perspective on both physicians and patients as they face these problems. The issue is discussed from physicians' and chaplains' perspective. In the context of this discussion the question of involvement of religious communities in providing better information and support to patients-members of these communities is asked. The aim of the research done here is to open discussion on the possibility of providing better medical and spiritual help, with greater respect and empathy to every patient, no matter their religious and/or cultural background, by involving religious perspective in the process.

Keywords

Breast cancer; Mastectomy; Ovariectomy; *BRCA* carrier; Spirituality; Religion; Chaplain

1. Introduction

In this article we discuss prophylactic mastectomy and ovariectomy from a religious, hence non-surgical perspective. In recent years women worldwide have gained support from many institutions in their fight against breast and ovarian cancer. Many celebrities have also helped to spread knowledge about genetic screening and risk groups, especially Angelina Jolie [1]. Though awareness of the problem in general public is much better now, there is still a lot to be done. This article aims at broadening the scope of this awareness by saying that prophylactic mastectomy and ovariectomy involve both ethical and religious issues which might be crucial to patients considering undergoing these procedures. We have searched PubMed for articles about religious perspective on prophylactic procedures for *BRCA* carriers and found none. Bearing in mind, that these procedures leave the patients with irreversible change to their body, which may deeply affect them both physically and mentally, moral and religious issues concerning such a shift in ones' life should be addressed with profound consideration and respect to one's concerns and beliefs [2]. As the awareness of significant impact of moral and spiritual life on a persons' overall happiness is growing, addressing moral and spiritual concerns, should be considered a part of a survey preparing patients for a prophylactic procedure, which aims at prolongation of both their life and wellbeing [3]. Therefore, emotional, mental and financial toll of prophylactic surgery is discussed only marginally, as the aim of the paper is to single out and explore the religious perspective. Local religious communities might contribute a great deal to the process and in doing so broaden the scope of preventive cancer care. Discussing complex issues of how different religions approach the problem of human frailty, suffering and illness, would greatly extend the limits of a journal article. Therefore, we don't mention any religion in particular. The focus of the paper is to show a general religious perspective on the problem. Since there is not much data nor is there a discussion on these issues, we decided to discuss them from both a medical professional and chaplains' perspective.

2. Epidemiology

Currently according to GLOBOCAN there were 2,088,849 women diagnosed with breast cancer and 295,414 women diagnosed with ovarian cancer in 2018. 626,679 died because of breast cancer and 184,879 died because of ovarian cancer in 2018. Alone in USA in the same year there were approximately 22,240 new cases of ovarian cancer diagnosed and 14,070 ovarian cancer deaths [4]. In year 2013 in USA 232,340 new cases of invasive breast cancer and 39,620 breast cancer deaths were expected to occur. Almost one in eight women will develop breast cancer in her lifetime [5]. Many of those patients are *BRCA* (BReast CAncer gene) carriers.

3. *BRCA1/BRCA2*

BRCA1 is a human suppressor gene in chromosome 17 in locus 17q21. It is responsible for DNA repair [6]. *BRCA1* car-

riers have 50–80% higher risk of becoming breast cancer and 40% higher risk of ovarian cancer. *BRCA2* gene is located on the long (q) arm of chromosome 13 at position 12.3 (13q12.3) [7]. *BRCA2* gene is different to *BRCA1* gene but it holds the same function of genetic material repair. At the beginning *BRCA2* was connected to a risk close to 90% for mutation carriers to develop breast cancer but in unselected clusters the risk appears much lower—around 40% [8].

4. The problem of moral status of prophylactic mastectomy and ovariectomy

The first ethical issue is defining the moral status of both procedures [9], the second one is determining the time when they should be performed. At first glance, cancer treatment doesn't seem to involve much moral doubt: since treatment is a reaction to an evil which has occurred (an illness) and poses a threat of even greater evil (such as pain, suffering and psychological trauma to the person and her relatives, or even death). Hence if there is a chance of eliminating the illness completely or at least decreasing the symptoms and in doing so assure longer life in relatively acceptable state of wellbeing, lack of treatment seems to be morally wrong. What if the evil has not occurred yet and the threat of getting ill is only hypothetical? Should we respond now to an evil which may or may not present itself in much or less distant future? How to determine if the preventive treatment responds properly and proportionately to the risks? These questions cannot be avoided. Gravity and complexity of problems which they reflect on theoretical level show how difficult it is to face them in practice. Both the physician and the patient in making decision about such procedure are involved in complex decision-making process [10, 11]. Decision should be based on the following criteria: risk of occurring of the illness in case of neglecting the prophylactic procedure, estimation of acceptable risk both from medical standpoint and personal viewpoint of the patient, possible effectiveness of alternative, less invasive forms of prophylactic and relation between the risk of replacing surgical procedures with these in the light of advantage of their non-invasive nature. Invasiveness of both mastectomy and ovariectomy as medical procedures significantly interfere with ones' health and wellbeing resulting in permanent loss of parts of ones' body [12]. There are also many studies showing that salpingectomy is important for risk reduction [13]. Therefore, the procedure should be performed in a way to minimize the negative and maximize the positive effects [14]. This is where the second ethical issue arises: timing of the procedure. Timing of preventive mastectomy and ovariectomy should be considered mainly in the context of fertility and subsequently wellbeing of the person as both woman and mother. Ovariectomy/salpingectomy, if performed at the early stage of life, will leave the patient unable to ever have children of her own, which may affect not only her overall wellbeing, but also her mental health. Issues such as marital status and number of children often affect and are affected by religion. Therefore, a standard extensive fertility counselling based on age and risk, which patients undergo before the procedure, should take the religious perspective under consideration. Mastectomy doesn't seem to raise similar concerns at first, but it is worth mentioning both physical and psychological consequences of such operation, which may lead to many similar issues. Sudden, unwanted and irreversible change of such kind in ones' life often leads to distress on many different levels [15]. It is worth mentioning that the moment of surgery itself is very stressful for the patient. Most of them know that histopathological samples will be taken. They have to wait for the result of intra-operative examination, but even more for the final histopathological result. Questions about the future mix together with post-operative pain and discomfort. All possible support shall be given at this point to the suffering patient not only from surgical team, family and relatives but also from psychologist or in some cases spiritual advisor [16]. Since in some countries religion plays a very important role and some women may feel more comfortable to speak to a priest rather than to a psychologist, we try analyzing this issue from chaplain's perspective.

5. The problem of integrity of the human body in religion and ethics

In many religious and moral systems, the significance of integrity of the human body derives from the concept of the dignity of the human person and subsequently of human life. It is worth mentioning that according to the Bible there is nothing intrinsically wrong with performing a surgical procedure. God himself performed one on Adam in Eden. While the Bible itself mentions procedures of removing bodily parts and doesn't seem to ascribe any moral blame to it, some religions deriving from the Bible would prohibit it in the past. Notwithstanding, nowadays it is common belief throughout most religious and moral systems, that removing body parts for the sake of one's health not only doesn't contradict the idea of integrity of human body, but aims at preserving it by prolonging life, therefore it is morally admissible. Despite the fact that the dignity of the human person is a notion of religious origins, it applies to medical environment. It implies that in the medical context everyone should be treated with great empathy, compassion and respect. Since the discussed procedures are related to reproduction, the great dignity of woman as mother, recognized and somehow celebrated by almost every known religious and ethical system, should also be considered. The integrity of the body seems to have great impact on many different dimensions of person's life. Therefore, preserving it is both an ethical and a religious issue. Mastectomy is a procedure that can be recognized by patients' relatives and friends, thus it can be double stress dose. First when it comes to the surgery itself, second when it comes to social background and appearance. This is not the case in ovariectomy, which can be done laparoscopically. The problem of partial loss of integrity of ones' body, which occurs in these cases, can be resolved to a certain extend by surgical and

reconstructive procedures. It is also advised to consult patients after mastectomy with plastic surgery units for reconstructive second-stage procedures. There is also much discussion about nipple saving surgery or even one stage direct-to-implant surgery, although it still brings controversy when it comes to oncological safety [17, 18].

6. Spiritual screening and moral screening as part of preventive cancer screening—addressing spiritual and moral distress

Apart from the medical risks one has to consider the psychological, spiritual, social and economic issues. The complexity of factors involved in the decision-making process itself might lead to spiritual and moral distress [19, 20]. Therefore, spiritual and moral screening should be comprehensible and exhaust all possible issues in order to comfort and reassure the patient and her close ones, enabling them to make peace with difficult decisions and challenges on all mentioned levels, which may follow [21]. Such a wide screening combined with counselling should be provided by a team of physicians, surgeons, psychologists, chaplains and members of religious community of the patient. Such a screening gives to the patient an opportunity to be treated with equal dignity and respect, no matter her cultural and religious background.

7. The role of religious communities in preventive cancer care

Religious communities may have an important role to play not only in cancer treatment, but also in cancer prevention. They may provide a secure and comfortable environment for women of all ages to speak about their physical and mental health concerns. The intimate and delicate nature of such issues often makes it difficult to share with others. This is why religious communities have great advantage, as they gather people who share the same values and beliefs, supporting each other as they pursue a similar way of life. Thus, religious communities should provide women with information about cancer risks and encourage them to cancer prevention regimen, such as maintaining a healthy lifestyle and proper diet, testing, and if needed, undergoing a cancer preventing procedure. Most importantly, they should create a space of profound empathy, compassion and understanding, which would give women an opportunity to talk about health issues and seek help. This is not to say that the religious community should provide any medical advice, but rather that it should help to find proper professional help. The religious community in this case is supposed to be the first step in seeking professional help. Members of religious communities may take part in the process of qualifying for a preventive procedure and undergoing it, helping to ease the stress, and providing comfort and support in case of any spiritual concerns for women and their families.

8. Conclusions

Prophylactic oncologic surgery brings many questions that cannot be directly answered. Mastectomy, ovariectomy and salpingectomy are very stressful procedures. It is advisable to organize psychological and spiritual support teams at wards. Involving local religious communities in spreading information about preventive cancer care might significantly broaden its' scope and help women in getting medical help on time as well as create place of support, empathy and compassion for those in distress. Patients undergoing those procedures do not only need modern genetic counselling and testing, fast and effective surgery, good wound healing etc., but also some support for the soul. Beautiful feminine soul in this case.

Abbreviations

BRCA, Breast Cancer gene.

Author contributions

BK conceived the project. PZ designed the paper. BK searched the literature concerning medical aspects of mastectomy and ovariectomy. PZ searched the literature concerning ethical and religious aspects of mastectomy and ovariectomy. BK and PZ wrote the paper. All authors read and approved the final manuscript.

Ethics approval and consent to participate

Not applicable.

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Conflict of interest

The authors declare no conflict of interest.

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