

Knowledge and Practice of Patients with Breast Cancer about Complication of Chemotherapy

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Abstract

Background: In this study we evaluated the knowledge and practice of patients with breast cancer about complication of chemotherapy referred to chemotherapy ward of Nemazee Hospital in Shiraz, Shiraz Province, Iran, in 2004.

Methods: Forty patients suffering breast cancer and under chemotherapy, were selected with a simple random sampling method. All were interviewed and a questionnaire was completed for each by trained interviewers.

Results: Overall correct responded answers were 30% in knowledge part and 53% in the practice part. There was no relation between knowledge and practice of patients with demographic variables ($P > 0.05$). Considering the episodes of chemotherapy, only in the knowledge part the women who were attending to receive third episode of chemotherapy had more awareness ($P < 0.004$). The sources of patients' information in this regard were as follows: 18% by nurses, 82% by themselves and 0% by physicians.

Conclusion: According to the results, it seems that unfortunately there is not effective education about chemotherapy complication, because their knowledge and practice were not in acceptable level. Considering the importance of this subject, it is needed to having educational program for patients to improve patients' ability and skills for coping chemotherapy and its side effect as well as adapting illness

Keywords: *Breast cancer, Chemotherapy, Drug complication, Knowledge, Practice*

Introduction

Breast cancer is still the most common cancer in women (30% of total cancers) and considered as the second one after lung cancer (1). One third of mortalities of all cancers are related to breast cancer. Adjuvant treatment recommendations for patients with stage I or II breast cancer are based on the clinician's estimates of the likely risks of breast cancer relapse and death and the likely benefit of

adjuvant therapy (2). Chemotherapy is used mostly after surgery in high risk patients with high susceptibility to metastasis and it decreases the mortality rate about 40% (3). The common side effect during chemotherapy are fatigue, nausea, hair loss, oral ulcers, anorexia or combination of these symptoms that may cause pain and discomfort in women. Most of the undesirable signs are eliminated with education and simple treatments such as washing the mouth for removing the ulcers. In addition, some medications are administered to remove nausea and weakness

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caused by consumption of anticancerous medications. If loss of hair is considerable, it is recommended to use wig and the patient should be explained about the little changes in their hair and its growth during or after treatment (4). Nursing care for patients under chemotherapy is very critical. Other than preliminary cares, nurses should teach patients how to deal with pain and inform them about the management of their condition and explain the side effects of chemotherapy which can reduce or remove these complications and help these people pass this critical condition successfully (5). In a study, two third of the patients were satisfied with the information they received about cancer and its treatment (6). Lack of information may lead to increased uncertainty anxiety, distress and dissatisfaction and may negatively influence patients' treatment decisions (7, 8). In this study, we decided to evaluate the knowledge and practice of the patients under chemotherapy to determine the nurses' practice indirectly.

Materials and Methods

It was a cross sectional study from July through August 2004 in chemotherapy ward of Nemazee Hospital, a referral chemotherapy center of southern region of Iran. Women with histological confirmed breast cancer and candidate for adjuvant systemic therapy, regardless of undergoing surgery, were eligible for the study.

Considering $\alpha = 0.05$, $P = 0.3$ and $d = 0.15$, sample size was calculated as 40 patients. In a four weeks period two days randomly selected in each week (except Friday) and in each day, five patients with the mentioned criteria were picked with simple random sampling method. Written informed consent was obtained from all eligible patients before taking part in the study. Data were collected by questionnaire and interview was done with patients, by a trained interviewer

approximately 30 min for each patient in a private room in that ward. Content validity of the questionnaire was approved by related experts and its reliability was acceptable (Cronbach Alpha= 0.87). Questionnaire was designed in 4 parts. First, demographic information including age, marital status, educational level, employment status, living place, family history of breast cancer, and history of receiving chemotherapy were asked. Secondly we assessed the patients' awareness of chemotherapy side effects with 15 questions. (Consist of gastrointestinal complication, e.g., dark stool, loose stool, urinary tract complication, e.g. painful urination, red urine, skin and hair complication, e.g., hair loss, eye, ear, nose and throat complication, and so on. Thirdly, we asked them about their practice regarding how to prevent or manage the likely complication with 10 questions (e.g., drinking large amount of liquid, using more water for washing in the toilet, eating less protein, more fiber, mouth wash with sodium bicarbonate, what type of toothbrush they use, keeping herself against who has common cold, not doing difficult exercise). Each item on the questionnaire consisted of a statement followed by a false/true/unsure response in the knowledge assessment and yes/no in the practice assessment. Eventually we asked them about the source of their information, divided to three parts: doctor, nurse or herself.

The instrument was scored as the percentage of correct responses from 0-100 and also mean of the correct answer calculated and we found its relation with demographic variables and episodes of receiving chemotherapy by the means of student *t*-test and analysis of variance using SPSS software.

Results

Forty patients with the mean age of 47 ± 10 yr (range: 32-72 yr old) participated in this study. Among them 85% were married. Eighty per-

cent were housewives and the rest of them working in administrative sections. Considering their education, 25% was illiterate, 67.5% semi-illiterate and 7.5% with academic degree. According to their residence, 15% lived in the center of province and 85% lived around villages.

27.5% of women had not received chemotherapy previously, 20% were candidate for the second time and 52.5% were candidate for the third time.

In evaluation of the knowledge of women about chemotherapy side effects, 15 questions were included about the most common side effects such as dysuria, melena, loose stool, oral infection, joint pain, etc (Fig. 1) . The most important results about the patients practice were as follows: 67.5% of participants used to drink too much amount of liquid during the day to remove the harmful agents from the body. 70% of patients were used to wash with more water after toileting, 35% of participants were used not to eat proteins such as meat and cereals, 77.5% ate more fiber in the diet, 10% of patients who were suffering ulcer of mouth reported that they applied sodium bicarbonate solution as mouth wash solution, 57.5% used soft tooth brush, 37.5% of patients kept themselves against people who had common cold or infectious disease, and 60% did not perform difficult exercises.

The knowledge and practice of this group was totally evaluated by reviewing the whole percentage of current answers in each field. In relation to knowledge, 30% had correct answer, 33% had wrong answer and 37% answered "I don't know".

In the practice part; 53% had correct and 47% had wrong practices regarding prevention and management of drug complication. The source of information of all patients interviewed about the related matter, were 18% by nurses, 82% by themselves and 0% by physicians.

To evaluate the relation between knowledge and practice with demographic variable and episodes of receiving chemotherapy, we calculated the mean score of correct answer in the two fields of knowledge and practice. Using student *t*-test there was no significant relation between both knowledge and practice of the women with marital status, living place (rural or urban), and family history of breast cancer. Using analysis of variance there was no significant relation neither between knowledge and practice with age, (dividing into 4 groups: 32-41, 45-51, 52-61 and 62-72 yr) educational level and employment status. Only we found a significant relation between knowledge of women and episodes of receiving chemotherapy; that LSD (least significant difference) test showed, women who were attending to receive third episode had more knowledge than they were referring for first episode ($P < 0.004$).

Discussion

It seems that the most important weak point is in the training of patients in all fields especially in teaching about the side effects of chemotherapy and related management and preventive methods. In a descriptive study about nursing care of oncology patients, receiving chemotherapy results showed that the content and the quality of the explanation of the treatment and care regime were correlated positively with patient's self-esteem. Also involving the patient in his care plan and giving him control over the activities of day were positively correlated with importance of having things explained to him (9). The science of shared Decision Making has shown that patients are more comfortable and less anxious about their diagnosis and management if they understand the disease and their choices for management; if they understand their own values and preferences for the choices of care; and if they are able to participate in the decision making about their

management. Anxiety, decisional conflict, and regret about the outcome are effectively diminished by this communication technique (10). The provision of information is considered to be an important part of the care of patient with cancer. The blueprint for cancer services in England and Wales, the Calman-Hine report, recommended that “patients, families and carriers should be given clear information and assistance in a form that they can understand available treatment options and outcomes at all stages of treatment from diagnosis onwards”(11).

Patients identified one-by-one and were discussed by nurses and doctors as the preferred way to receive information. In order to meet the individual needs of cancer patients, education should be provided in a variety of learning modalities (12).

According to our results, in spite of medical group responsibility for informing patients about side effect of chemotherapy and patients role for reducing consequences of chemotherapy, unfortunately physicians had not any role in the patients' education and nurses could not act effective for educating patients.

Improvement in physician patient communication can result in better patient care and help patients adapt to illness and treatment and improve patient compliance with treatment approaches (13).

According to the mentioned points, it is recommended that medical group and nurses working with such patients, prepare simple manual with clear pictures or movies for giving the required explanations about their management. We suggested that showing ap-proprate teaching films during chemotherapy could help to promote patient awareness. Creating coaching groups and exchanging information and thoughts among patients are also another effective way to promote patients self-esteem. Besides, implementing the educational courses about communication skills, for physicians and nurses working with such patients, helps to improve their communication and patient compliance with treatment approaches.

Finally we hope with implementing all these recommended points health care personal could produce an appropriate situation for achieving the best outcome, in cancerous patients.

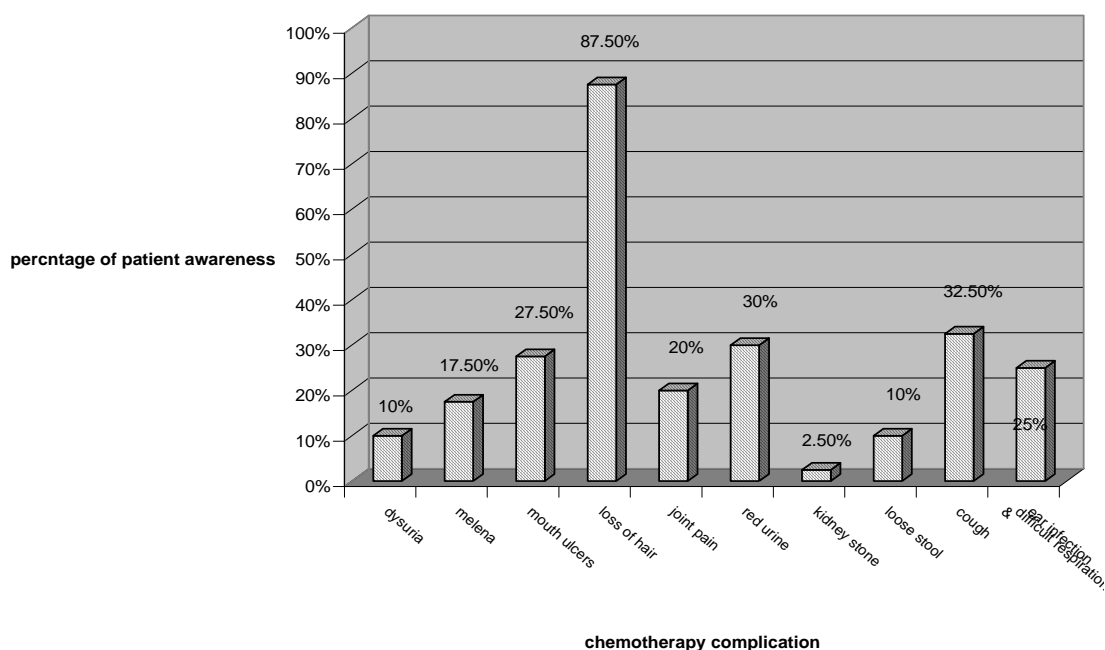


Fig. 1: The percentage of patients’ awareness about chemotherapy complications

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