

State of knowledge on cancer diets of breast cancer patients at the beginning of medical rehabilitation

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Summary

There is no scientific proof that so-called “cancer diets” are effective. 1,111 rehabilitation patients with the diagnosis of breast cancer were surveyed. 16.6 % reported that they were familiar with at least one cancer diet and 2.0 % reported that they had already tried out one of these diets. They had mostly heard about cancer diets from acquaintances or from the print media. In comparison with controls, persons familiar with a cancer diet were more likely to have a higher school leaving certificate and to regard healthy nutrition as important. As acquaintances and print media were given as sources of information, it is important to focus on explanation and transmission of current knowledge during rehabilitation.

Keywords: diet, cancer diet, breast cancer, rehabilitation

Introduction

Cancer patients often try to find the cause of their disease or to influence the course of their disease in various ways [1, 2]. A literature search on nutrition and cancer leads to so-called

“cancer diets” - also known as “anti-cancer diets”. These are special diets that are intended to prevent cancer (primary prevention), to support recovery or to cure cancer (secondary and tertiary prevention). On the other hand, there is not yet any scientific proof that any cancer diet is effective [1–4]. Indeed, these diets can trigger complications or be harmful to health [1, 5, 6].

In general, alternative and complementary medicine - including special nutrition - are an important issue for cancer survivors [7]. It has been estimated in the international literature that up to 75 % of patients may use them [8]. In particular, breast cancer patients require comprehensive information about nutrition during rehabilitation [9]. There is currently no information on how familiar pa-

tients with breast cancer in rehabilitation are with cancer diets, or how often they use them.

Question

The aim of this survey of patients with the diagnosis of breast cancer in rehabilitation was to record how much they knew about cancer diets and to list the sources or media they used to acquire information. It was also investigated whether there are differences in sociodemographic and health-related characteristics between patients familiar with cancer diets and who have tried them, in comparison to controls without this knowledge.

Methods

“Individuelle Nachsorge onkologischer Patienten”¹ (INOP study) is a prospective long-term study with randomised controlled intervention groups, including breast cancer patients with the diagnoses ICD-10 C50 (malignant tumour of the mammary gland), D05 (carcinoma in situ of the mammary gland) or C79.81 (secondary malignant tumour of the mammary gland).

¹ Additional information on the study can be found on the website of the Institute for Rehabilitation Research (www.ifr-norderney.de).

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They were not in a palliative situation, and were sufficiently fluent in German to take part in the survey without problems. In addition, a signed informed consent form was prepared. The study participants were consecutively recruited between December 2009 and September 2011 in five rehabilitation centres in Eastern Westphalia. They were receiving medical rehabilitation, either as follow-up treatment (59.5 %), or as general therapy (40.5 %). For 69.8 % of the study participants, the diagnosis had been made within the previous twelve months. The Ethics Committee of Westphalia-Lippe Medical Association and the Faculty of Medicine of the Westphalia Wilhelms University Münster checked the ethical acceptability and the data protection in the INOP study and gave its approval in January 2009 (File Number: 2008-439-f-S).

For the present cross-sectional analysis, the data from the participants in the INOP study were collected in writing at the start of their medical rehabilitation, in the form of a written self-assessment. The data assessment considered the information provided by 1,111 study participants (inclusion: n=1,184; response: 93.8 %).

They were asked

1. whether they were familiar with so-called cancer diets, and, if so, with which ones (free text answer);
2. to what extent they had tried out cancer diets;
3. which sources of information they had used.

Evaluation

The free text answers on the open questions about familiarity and experience with cancer diets were classified by cancer diet, types of food and nutritional concepts. Using the χ^2 -test, it was examined whether study participants differed from controls with respect to sociodemographic and health-related characteristics.

	Information on knowledge of cancer diet(s)				χ^2 -test p
	yes		no		
	n	%	n	%	
School Leaving Certificate	182		904		<0.001
None / Elementary / Secondary School	69	37.9	498	55.1	
Secondary Modern School	66	36.3	261	28.9	
Advanced technical certificate / A-Levels	47	25.8	145	16.0	
Importance of Nutrition	183		922		0.002
Very important	136	74.3	577	62.6	
Important to not at all important	47	25.7	345	37.4	

Tab. 1: Characteristics of breast cancer patients who are aware of cancer diet(s) and those who are not

Results

The mean age of the subjects was 59.5 ± 10.5 years (range: 26 to 87 years).

184 (16.6 %) of the subjects were familiar with so-called cancer diets, including 22 subjects who had already used a cancer diet. Ten patients had used the "beetroot therapy diet" [10], four Dr. Coy's "anti-cancer nutrition" [11, 12] and one person the "cancer cells don't like raspberries diet" [13]. Other nutritional forms tried were: "a lot of fruit and vegetables", "dandelion", "sage tea", "use turmeric in cooking" and "vegetarian food".

Of the 22 persons who had tried a cancer diet, 12 stated that most of their information came from acquaintances and 12 mostly from books (multiple entries possible).

♦ Table 1 shows that subjects without knowledge of a cancer diet possessed on average a lower level of schooling than persons with this knowledge. Moreover, the question "How important is healthy nutrition to you?" was answered with "very important" by 74.3 % of sub-

jects who stated that they were familiar with a cancer diet, but only 62.6 % of controls. There were essentially no differences between the two groups with respect to body mass index (χ^2 -test: p = 0.400), age group (χ^2 -test: p = 0.779) or family status (χ^2 -test: p = 0.224) (data not shown). ♦ Figure 1 shows the sources of information used for the so-called cancer diets and ♦ Figure 2 the most frequently reported cancer diets.

Discussion

One in six of the surveyed breast cancer patients stated that they had belonged already of cancer diets, but only 2 % stated that they had used these diets themselves. This means that only a few persons had occupied themselves with special diets before medical rehabilitation. It follows that medical rehabilitation is a suitable occasion to deal with the theme of cancer and nutrition [14].

Both persons familiar with cancer diets and those who had already used such a diet acquired most of their information from acquaintances,

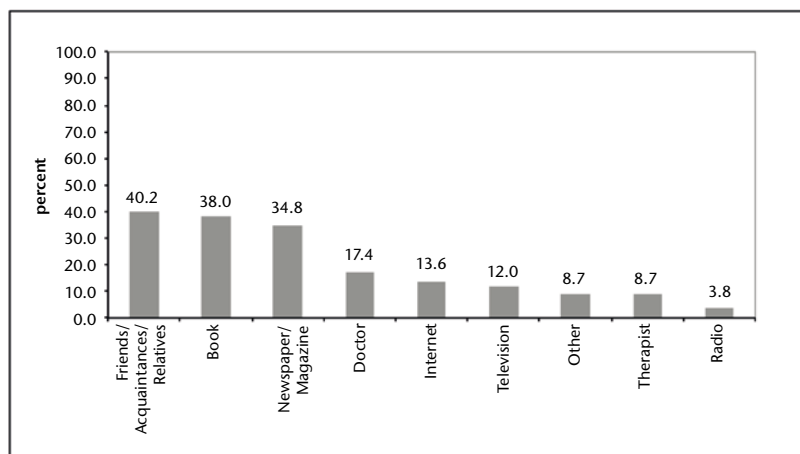


Fig. 1. Sources of information on cancer diets favoured by breast cancer patients who know about such diet(s) (n = 184). Multiple answers were possible, figures in percent

friends or relations (position 1) and books (positions 2). Both acquaintances, so-called guides and newspaper articles (position 3) give a generally uncritically positive view of specific diets, often in layman's language [4]. The participants only awarded the fourth position to the physician, although he is normally regarded as the patient's most important adviser on cancer treatment. Possible problems include inhibitions in physician-patient communication or lack of confidence on the part of the patient that the physician can answer open questions correctly [15, 16]. Among

the patients interviewed, the Internet played a subordinate role, which is partially to do with the participants' relatively high age. This sequence of information sources is consistent with published information [17]. The results can be taken to mean that persons with a higher level of education are more likely to be interested in the theme of cancer and nutrition. Patients actively search out information, in order to do something themselves against the cancer – and nutrition is then an important theme [2, 18]. It is therefore comprehensible that persons who consider that their

nutrition is important are more likely to become aware of cancer diets or to study the issues. As cancer diets may be linked to side effects or health problems [1, 5, 6], persons interested in cancer diets require a great deal of information. For example, this may be actively provided by dieticians in health facilities, such as rehabilitation clinics [19, 14]. In a review, HÜBNER et al. have listed 14 recommendations for nutritional advice of cancer patients, in order to address the theme of cancer diets actively and to inform patients of the related risks [7].

Limitations

One limitation in this survey was that the question about cancer diets familiar to the subject already contained two examples ("total cancer cure" and "beetroot as medicine"). Some of the subjects also specifically mentioned these. It is then unclear if they were really aware of these, or just mentioned them because they were already present in the questionnaire. It is also unclear for how long and in which form the subjects implemented the cancer diet(s).

Conclusion

As cancer patients often cannot

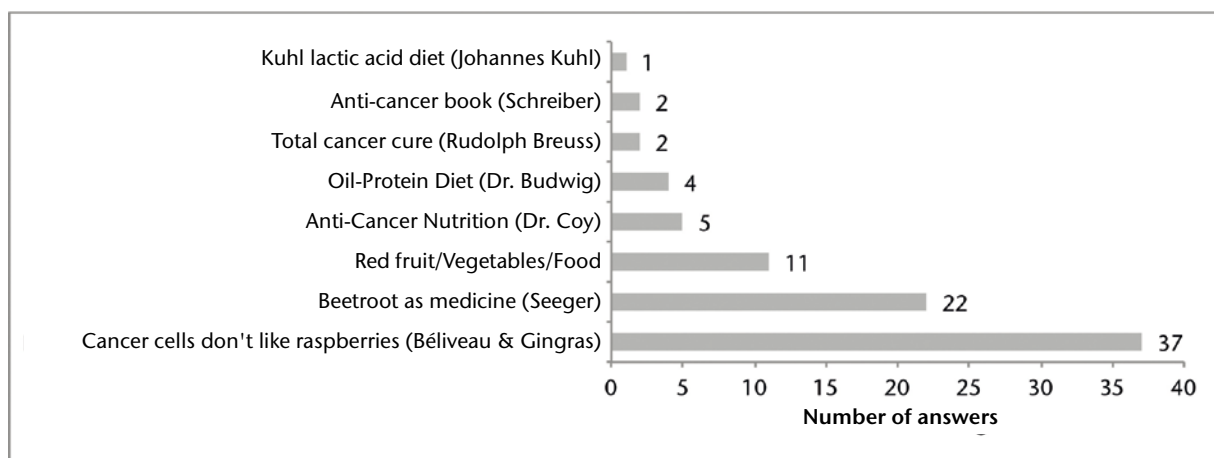


Fig. 2. Cancer diets/sort of food/nutritional concepts given by breast cancer patients (n = 184). Multiple answers were possible. 55 persons gave no cancer diet/sort of food/nutritional concept. 78 statements could not be assigned.

evaluate cancer diets and their effects [4], they should be recommended or provided with nutritional advice during rehabilitation. It is also generally important that medical staff should discuss with cancer patients how they might possibly help to improve their health. Nutrition is recommended that is rich in fruit, vegetables and wholemeal, coupled to regular physical activity of at least 150 minutes per week [20, 21].

The patients should also be advised that no effective cancer diet is known and that, in particular, they should avoid selective diet forms. Finally, they should be informed of suitable sources of information on the theme “nutrition and cancer” and these should be discussed individually [9]. This is the only way to guarantee that patients can think critically about the theme “nutrition and cancer” and with compliance with cancer diets, so that they can consider their nutritional habits on this basis.

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Conflict of Interest

The authors declare no conflict of interest according to the guidelines of the International Committee of Medical Journal Editors.

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