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].

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).

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 with controls without this knowledge.

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1 Additional information on the study can be found on the website of the Institute for Rehabilitation Research (www.ifr-norderney.de).
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 $\chi^2$-test, it was examined whether study participants differed from controls with respect to sociodemographic and health-related characteristics.

**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 subjects 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 ($\chi^2$-test: $p = 0.400$), age group ($\chi^2$-test: $p = 0.779$) or family status ($\chi^2$-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,
friends or relations (position 1) and books (positions 2). Both acquaintance,
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, al-
though he is normally regarded as
the patient’s most important adviser
on cancer treatment. Possible prob-
lems include inhibitions in physici-
an-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 means
that persons with a higher level of
education are more likely to be inte-
rested in the theme of cancer and nu-
trition. 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 li-
keely 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 pa-

tients, 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 con-
tained 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 questi-
onnaire. It is also unclear for how
long and in which form the subjects
implemented the cancer diet(s).

**Conclusion**

As cancer patients often cannot
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.

References


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