ORIGINAL ARTICLE

Complementary-alternative medicine among cancer patients in the western region of Turkey

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Summary

Purpose: To investigate the complementary/alternative medicine (CAM) applications and factors affecting its use among cancer patients in the western region of Turkey.

Patients and methods: Face-to-face interview technique was used. Patients were asked to answer a questionnaire about their socio-demographic features, their level of knowledge about the disease and CAM application features.

Results: 220 adult cancer patients (79 male) were evaluated. Ninety-three (42.3%) were using at least one CAM method, the most common being herbal products which were preferred by 81 (36.3%) patients. Stinging nettle (Urtica dioica) was the most commonly used herbal product. Next was nutritional support, preferred by 45 (20.3%) patients. Eighty- nine (44.5%) of 200 patients who knew the diagnosis and 4 of 20 (20%) who did not were using CAM. In the patient group with awareness of the diagnosis, CAM application was significantly higher (p=0.034). CAM applications were detected in 34 of 70 (48.5%) patients with recurrent disease while 54 of 150 (36%) patients without recurrent disease were using CAM. The CAM applications were significantly higher in the group with recurrent disease (p=0.006). Fifty-three of 103 (51.4%) patients who had advanced disease were using CAM, while only 40 of 117 (34.1%) patients with local or locally advanced disease were using it. CAM applications were significantly higher in the group with advanced disease (p=0.030). Besides, knowing the diagnosis and disease recurrence were also independent risk factors for CAM usage [odds ratio (OR): 3.1; 95% confidence interval (CI): 1.0-9.8 and OR: 2.2; 95% CI: 1.2-4.0 respectively]. As a result, nearly half of the patients (42.3%) in this region were using at least one of the CAM methods.

Conclusion: The severity of the disease (recurrence and dissemination) and patients' awareness of the diagnosis were the most important factors affecting the CAM applications.

Key words: cancer, complementary-alternative, complementary treatment, medicine

Introduction

The incidence of CAM applications among cancer patients ranges between 7 and 72% as reported in different studies from several countries [1,2]. The incidence and the types of CAM applications are associated to the socio-cultural characteristics, the degree of development, the types and sufficiency of health services provided and the visions of the social security systems. Also, personal factors such as the socio-cultural status of the patient and the type and dissemination of the disease affect the tendency to CAM applications. So, the incidence may change and different application methods may be seen from region to region in the same country.

In a few number of studies from different parts of Turkey the incidence of CAM application was reported to range between 23% and 61%. The mostly preferred method was herbal products with Stinging nettle being first in the rank [3-8].

Since there is a lack of knowledge about the CAM application in the western part of Turkey, we decided to carry on this study.

Patients and methods

Patients who were admitted to the Medical Oncology Department of Dokuz Eylul University Hospital between August 1st and September 30th 2003 were included in the study. Two hundred and twenty of 265 patients (83%) accepted to enter the study. All patients gave informed consent.

The study was performed by face-to-face interview technique. Patients were asked to answer a questionnaire containing questions about their socio-demographic features, the level of their knowledge about the disease and CAM application features. The primary information about the disease - type of the tumor, time of diagnosis, current disease grade and the grade at the time of diagnosis, recurrence, the type of therapy (adjuvant or palliative), analgesic treatment (narcotic or non-narcotic) - was registered from the patients' medical records. Following that, patients were asked to clarify their CAM application status. If the answer was "yes" then the time of beginning CAM, the factors affecting their decision-making, the types of application, benefits gained, recommendation to other patients and cost-effectiveness were investigated.

CAM application types

The CAM application types that the patients used were classified as follows:
  Herbal: Stinging nettle, herbal teas, aloe vera, saffron, ginger etc.
  Home made: "old women" medicine, tar oil.
  Supportive: honey, grape molasses, pollen, bee milk.
  Animal: shark cartilage, shark liver, snake skin.
  Vitamins-minerals: Immuneks®, selenium and other vitamins.
  Other: homeopathy.

Statistical methods

The data were analyzed by SPSS for Windows, version 10.0. The relationship between categorical variables and CAM use was assessed with chi-square test. Student's t-test was used to compare CAM use situation with the other parameters. The model used to find out factors affecting CAM use was tested with multiple logistic regression analysis (backward). OR and 95% CI were used for calculations. Statistically significant level was put at $p < 0.05$.

Results

Out of 220 patients included, 79 (35.9%) were males and 141 (64.1%) females. The age of the patients ranged from 24 and 83 years (average 56.5±12.2). Most of the patients (103, 46.8%) had advanced disease at the time of the interview. Two hundred (90.9%) of the patients knew their diagnosis and 70 (31.8%) had recurrent disease (Table 1).

Ninety-three (42.3%) patients were using CAM applications. The most preferred CAM methods were herbal products (81 patients, 36.8%) with stinging nettle being first, followed by supportive products (45 patients, 20.5%; Table 2).

Half of the patients (48.4%) admitted starting CAM applications at the time of diagnosis. The leading factors affecting a patient to incline to CAM applications were family members and the social environment (70.0%). Most of the patients applied CAM methods for supportive care (63 patients, 67.7%) and 44 patients (47.3%) mentioned that they were benefited from CAM methods.

One hundred and twenty-five patients (56.8%)

Table 1. Characteristics of the study population

Characteristic	Number	%
Tumor type		
Breast	79	35.9
Colon	29	13.2
Rectum	24	10.9
Gastric	14	6.4
Ovary	15	6.8
Pancreas	9	4.1
Other	50	22.7
Stage at the time of diagnosis		
Local	57	25.9
Locally advanced	105	47.7
Advanced	58	26.4
Current stage		
Local	34	15.5
Locally advanced	83	37.7
Advanced	103	46.8
Awareness of diagnosis		
Yes	200	90.9
No	20	9.1
Recurrence		
Yes	70	31.8
No	150	68.2

Table 2. Types and application of CAM

	Number	%
CAM application		
Yes	93	42.3
No	127	57.7
Types of CAM		
Herbal	81	36.8
Supportive	45	20.5
Home made	11	5.0
Animal	9	4.1
Vitamins-minerals	6	2.7
Mind-manipulating	2	0.9
Other	2	0.9

lived in cities, mostly in Izmir which is the 3rd biggest city of the country and the biggest of the region with a population of nearly 2 millions. Fifty-six (44.8%) of the patients who lived in cities preferred CAM applications while only 2 of 12 patients (16.7%) who lived in the countryside preferred them.

The patients were classified into local, locally advanced and advanced groups according to the current stages of their tumors and the stages at the time of diagnosis (Table 1). While 26 of 58 patients (44.8%) who had advanced disease at the time of diagnosis applied CAM methods, this incidence was 50.9% and 51.5% for the patients who had local or locally advanced disease,

respectively. The CAM application ratios at the time of the interview were 38.2%, 32.5%, and 51.5% for the local, locally advanced and advanced groups, respectively (Table 3). Eighty-nine (44.5%) of 200 patients who knew their diagnosis at the time of the interview and 4 of 20 patients (20.0%) who did not applied CAM methods (Table 4). Thirty-nine of 70 patients (55.7%) who had recurrent disease used CAM applications, however this incidence was 36.0% for patients with no recurrence (Table 5).

The current stage of the disease, recurrence status, and the knowledge of the diagnosis were analyzed by backward logistic regression analysis together with age and sex. Knowledge of the diagnosis (OR: 3.1; 95%CI: 1.0-9.8) and disease recurrence (OR: 2.2; 95%CI: 1.2-4.0) were independent risk factors.

Discussion

The incidence of CAM application in our country was previously reported as ranging between 23 and 61%, and the methods mostly preferred were herbal products and spiritual methods. The spiritual methods were excluded because of their common application in the Turkish population [3-8]. Ninety-three (42.3%) of our patients were applying at least one CAM method. Herbal products were the mostly preferred (81 patients,

Table 3. CAM application in current stage

Current stage	Using CAM No. (%)	Not using CAM No. (%)	Total number	p-value
Local	13 (38.2)	21 (61.8)	34	0.072
Locally advanced	27 (32.5)	56 (67.5)	83	0.063
Advanced	53 (51.5)	50 (48.5)	103	0.030
Total	93 (42.3)	127 (57.7)	220	0.081

Table 4. CAM application according to awareness of diagnosis

Awareness	Using CAM No. (%)	Not using CAM No. (%)	Total number	p-value
Yes	89 (44.5)	111 (55.5)	200	0.034
No	4 (20.0)	16 (80.0)	20	0.069
Total	93 (42.3)	127 (57.7)	220	0.063

Table 5. CAM application according to recurrence state

Recurrence state	Using CAM No. (%)	Not using CAM No. (%)	Total number	p-value
Yes	39 (55.7)	31 (44.3)	70	0.006
No	54 (36.0)	96 (64.0)	150	0.061
Total	93 (42.3)	127 (57.7)	220	0.058

36.8%) followed by nutritional supplements (45 patients, 20.5%).

We could not find a statistically significant relationship between sex, age, marital status, the place that the patients had lived for the longest period, education, monthly income and application of CAM methods.

When the features of the disease were investigated, there was a statistically significant difference between the patients who knew their diagnosis and those who did not, and between the patients who had advanced and/or recurrent disease at the time of the interview and those who had not. Furthermore, knowledge of the diagnosis and recurrence were independent risk factors for our patients. Since 51.6% of the patients inclined to CAM applications after the recurrence and/or during the course of the disease, this could be attributed to the patients' and relatives' searching for new treatments due to the severity and persistence of the disease.

Family members and/or social environment were the leading factors (70.0%) affecting the patients decision to apply CAM methods. The other factors were the media (14.0%) and the internet (6.5%).

While nearly half of the patients (47.3%) mentioned that they were benefited from CAM applications only 16 (17.2%) patients were not benefited. These results may be important for planning wider studies for possible benefits of CAM applications.

Different studies from several countries reported that CAM application ratios were found to be higher for the younger [9,10], richer [2,10-12] and more educated patients [2,10].

Eighty-nine of 200 patients who knew their diagnosis and 4 of 20 who did not were applying CAM methods. The CAM application incidence was significantly higher in the group who knew their diagnosis (p=0.034). Knowing the diagnosis was also found to be an independent risk factor (OR: 3.1; 95%CI: 1.0-9.8). Knowing their diagnosis, makes the patients to search for new therapeutic alternatives, being easily influenced by their social environment and easily incline to CAM applications.

The severity of the primary disease is an important factor for the patients to incline to CAM applications. CAM application incidence is also high in patients suffering from advanced and/or poor prognosis disease [13-16]. Also, in our study CAM application was seen in 53 of 103 patients with advanced disease at the time of the interview, while 40 of 117 patients with local or locally progressive disease applied it. Among patients with advanced disease, CAM application was significantly higher than among patients with local or locally advanced disease (p=0.030). Furthermore, patients taking palliative therapy applied CAM methods significantly more often than patients taking adjuvant therapy (p=0.007).

Disease recurrence is one of the most important factors affecting the patients to incline to alternative therapies and complementary approaches [17]. Generally, patients feel hopeless in this period and search for other therapeutic alternatives after loosing their trust to the official medicine. In our study, recurrent disease and palliative treatment accompanying advanced disease affected the patients' approaches to CAM applications. Thirty-four of 70 (48.5%) patients with recurrent disease applied CAM while 54 of 150 (36%) patients without recurrent disease applied CAM. CAM application was significantly higher in the group with recurrent disease (p=0.006). Furthermore, recurrence alone was increasing CAM application as an independent risk factor (OR: 2.2; 95%CI: 1.2-4.0). CAM methods may be used by the patients not having recurrent disease, driven by the fear that recurrence will happen. In a study [2] the fear of recurrence was found to be one of the most important factors to incline patients applying CAM methods.

All of the above mentioned speak for the need that patients need true, sufficient, and detailed information about their disease. Informing the patients sufficiently, especially about the treatment alternatives and CAM, will prevent the unconscious application of CAM methods.

In conclusion, CAM applications were common among cancer patients in our region. The mostly preferred method was herbal products and the most important factor was family and social environment. Knowing the diagnosis, recurrence, and advanced disease significantly increased the CAM applications.

We believe that CAM applications should be kept in mind and information should be taken from the patients in case of drug interactions and unexpected adverse effects. Patients may use CAM when they have advanced disease and they should be informed about CAM applications honestly.

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