The Prevalance of Herbal Product Use as a Alternative Medicine Among Cancer Patients in Turkey

Türkiye'de Kanser Hastalarında Alternatif Tedavide Bitkisel Ürünlerin Kullanımı

Türk Kanser Hastalarında Bitkisel ürünlerin Kullanımı / Herbal Product Use in Turkish Cancer Patients

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Özet

Amaç: Bu çalışmada hastanemizde takip edilen kanser hastalarında bitkisel ürünlerin ne sıklıkta kullanıldığını araştırmayı amaçladık. Gereç ve Yöntem: Bu çalışmaya toplam 271 hasta alındı. Öncelikle hastalar tarafından iki bölümden oluşan bir anket formu doldurduldu. Hastaların hangi evrede olduğu ve tedavileri, anket formunun teslim edilmesini takiben belirlendi. Bulgular:Anketi tamamlayan 271 hastanın 97'sinin bitkisel ürün kullanmakta olduğunu gördük. En sık kullanılan bitkisel ürünler ısırgan otu, zencefil, arı poleni ve yeşil çay idi. En yüksek kullanım oranı 40-49 (%54) yaşlarındaydı. Bu oran eğitim seviyesindeki ve gelir seviyesindeki artışa paralel olarak (gelir seviyesi düşük gurupta %32, orta %35 ve yüksek gurupta %44) artış göstermekteydi. Tartışma:Türkiye'de kanser hastaları arasında kullanımı oldukça yaygın olan bitkisel ürünlerin kullanımına ilişkin onkologlar dikkatli olmalı ve toplum eğitilmelidir.

Anahtar Kelimeler

Kanser; Alteranatif Tıp; Bitkisel Ürün

Abstract

Aim: We investigated the prevalance of herbal product use in cancer patients who were followed up and treated at our center. Material and Method: A total of 271 patients were enrolled in this study. Patients asked to complete a questionnaire form and the stage of the patients and the treatment given were recorded following the delivery of the questionnaire form by the investigator. Results: Herbal products were used by 97 (35.7%) of 271 patients who completed the questionaire. The most common herbal products used alone or in combination were urtica urens, ginger, bee pollen, green tea. The highest use rate was observed in patients between the age of 40 and 49 (54%, p=0.099). The rate also was found to increase in in paralel to the increased level of income i.e 32% in patients with a lower income level, 35% patients with a moderate income level, and 44% in patients with a high income level (p=0.386). As the education level increased, the rate of use of herbal products also increased (p=0.023). Discussion: The use of herbal products is rather prevalent among cancer patients. There is a need to increase the awareness of the physicians regarding herbal products and educate the population as a whole.

Keywords

Cancer; Alternative Medicine; Plant Product

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Introduction

With the advances in the diagnostic and therapeutic modalities in oncology, expected survival time of cancer patients has increased. This increase in the survival time, coupled with increased cancer incidence, has lead more patients to turn towards complementary and alternative medicine (CAM) to further increase their quality of life, decrease the symptoms related to treatment and illness, strenghten their immune system, and perhaps even provide a cure [1,2].

CAM can be defined as medical methods which are not included in the medical education curriculum or are not performed routinely in hospitals [3]. It also includes practices which have not been demonstrated to be clinically beneficial by randomized clinical studies and on which no consensus has been reached by the biomedical society [4]. There is a wide variation in the rate of CAM usage throughout the world ranging between 7% and 64% (mean 31.4%) [5,6]. The highest rate (%73.1) has been reported Italy [7]. In Turkey, the rate ranges between 39.2% and 60.1% [8,9].

The National Center of Complementary and Alternative Medicine (NCCAM) has classified CAM into five different groups: 1-Alternative medical systems (methods intending to provide natural harmony), 2-Mind-body interventions (including meditation and hypnosis), 3-Biologically-based therapies (including herbal products and special diets), 4-Body-based and manipulative methods (including surgical operations) and 5-Energy therapies (including Qi gong) [6].

Questionnaire studies are simple and reliable methods that may easily demonstrate the most common CAM methods used among cancer patients. Patients usually donot share these methods with their health care team directing their treatment, unless inquired in depth. In recent years, it has been noted that cancer patients in our country are using herbal products more frequently. In a study performed in Ankara, 36% patients were found to prefer to use CAM methods, and the most commonly used method was found to be herbal therapy [1]. However, the preferred products for herbal therapy may vary between region to region. In this study, we investigated frequency and the type of herbal products used among the cancer patients who were treated and followed in our hospital.

Material and Method

The study was approved by the local Ethics Committee (03.02.2009-2/31) and conformed to the ethical standarts of the Helsinki Declaration.

A total of 271 patients with early or advanced cancer were included in the study. Patients completed a questionnaire form composed of two parts (Table 1 and 2). The first part of the questionnaire form included questions about age, gender, marital status, education level, monthly income, place of birth, city of residence (urban or rural), smoking status, familial history of cancer, awareness of the disease, and chemotherapy and/or hormone therapy during the previous month. The second part included questions about which products were used, when the patient started using the product and how often it was used, who recommended the product, from where the product was purchased, the monthly cost of the product, and whether the physician who followed up the treatment was informed about the product. The stage of the patients and treatments administered were determined following the delivery of the questionnaire form.

Table 1. Supplementary products and the number of the patients used them

Supplementary product	N	Supplementary product	N
Stinging nettle	31	Echinacea	4
Ginger	18	Imuneks tb	4
Multiherbal mixture	18	Ginseng	2
Bee's pollen	16	Reishi mushroom	2
Green tea	15	Misk thistle	1
Garlic	15	Snake weed	1
Pomegranate juice	14	Mineral support	1
Andromedotoxine	6	Gingko biloba	1
Flaxseed	4	Multivitamin product	4
St. john's wort	4		

Table 2. Clinical features of patients using herbal products

	User		Non-user		Total	Chi-square	p value
	n	~%	n	~%	N		
Age						9,27	0,099
18-29	2	33	4	67	6		
30-39	5	29	12	71	17		
40-49	22	54	19	46	41		
50-59	32	37	55	63	87		
60-69	27	33	53	67	80		
>70	9	23	31	77	40		
Sex							
Female	37	34	70	66	107	0,11	0,736
Male	60	36	104	64	164		
Cancer type							
GIS	31	37	53	63	84	6,51	0,368
Respiratory	19	28	59	72	69		
Breast	17	38	28	62	45		
Genitourinary	10	38	16	62	26		
Head and neck	9	37	15	63	24		
Hematologic	7	54	6	46	13		
Others	3	30	7	70	10		
Cancer stage						1,20	0,548
Early	24	32	52	68	76		
Locally advanced	32	40	48	60	80		
Metastatic	41	36	74	64	115		
Total	97	36	174	64	271		

Results

Ninety-seven (35.7%) of 271 patients who completed the questionnaire form stated that they were using herbal products. Generally, multiple products were being used such as stinging netle (n=31), ginger (n=18), multiherbal mixture (n=18), bee's polen (n=16), green tea (n=15), garlic (n=15), pomegranate juice(n=14), etc. (Table 1).

The rate of herbal product use was highest in those between the ages of 40 and 49 (54%, p=0.099). The rate was 35% for women and 36% for men (Table 2).

As the level of education increased in our patients, the rate of product usage increased markedly (p=0.023) with rates of 5% in uneducated patients, 34% in primary school graduates, 36% in

secondary school gradutes, 44% in high school graduates, and 54% in university graduates (Table 3).

The use of herbal products increased in direct proportion to the level of income; i.e 32% in patients with a lower income level, 35% in patients with a moderate income level, and 44% in patients with a high income level. However, this increase was not statistically significant (p=0.386) (Table 3).

Herbal product usage was more frequent in patients who were fully aware of their diagnosis compared with patients who were not fully aware (40% and 21%, respectively, p=0.014). Similarly, the use of these products was more frequent in patients with a familial history of cancer (42%) compared with those with none (32%). No significant relationship could be found between the use of herbal products and the localization and grade of the tumor, administration of active medical therapy, or smoking. The factors influencing the use of herbal products are summarized in Table 3.

Many of the patients (86.5%) started to use herbal products after the diagnosis of cancer. When the patients were asked if they found these products safe, 71.1% of the patients answered in the affirmative, 22.6% were undecided on the safety of these products, and 6.3% reported that they found them unsafe. Additionally, 58.7% of the patients who used these products thought that they had a positive influence on the treatment process, but 11.3% thought that they did not. In addition, 29.8% of the patients were undecided on this subject.

While recommendations for using herbal products were most frequently made by friends and neighbors (%30.9, n=30), and the media (%28.8, n=28), health care personnel had a lesser role (%12.3 n=12). The patients generally purchased these products from either herbalists (%57.7, n=56), markets (%24.7, n=24) or pharmacies (% 13.4, n=13). This information is given in Table 4. Fifty-four (55.6%) of 97 patients who used herbal products informed their physicians about the subject, but 43 (44.4%) did not inform them. In addition, only 23 (23.7%) reported that their physicians asked questions about the use of herbal products, and 74 (76.3%) reported that their physicians did not ask any questions about this subject.

Table 3. Demographical characteristics of patients using herbal products

	User		Non-user		Total	Chi-square	p value
	n	~%	n	~%	N		
Education level						11,32	0,023*
Uneducated	1	5	16	95	17		
Pimary school	54	34	103	66	157		
Secondary school	14	36	25	64	39		
High school	14	44	18	56	32		
University	14	54	12	46	26		
Geographical region						3,95	0,139
Western Turkey	66	39	61	61	170		
Abroad	6	20	24	80	30		
Eastern Turkey	25	35	46	65	71		
Residence							
Urban	87	37	149	63	236	0,91	0,139
Rural	10	29	25	71	35		
Monthly income						1,91	0,386
< minimum wage	24	32	50	68	74		
Min. wage - 1000 TL	51	35	96	65	147		
>1000 TL	22	44	28	56	50		
Disease awareness							
Informed	86	40	133	60	219	6,00	0,014*
Not informed	11	21	41	79	52		
Activetreatment in the last month						3,43	0,064
Yes	79	39	124	61	203		
No	18	26	50	74	68		
Total	97	36	174	64	271		

Table 4. Supplier and recommender of the herbal products

Supplier	N	Recommend by	N
Herbalist	56	Friend,neighboor	30
Market	24	Media	28
Pharmacy	13	Family	17
Self-made	3	Health professional	12
internet	1	Other patients	4
		Herbalist	3
		Pharmacy	1
		Oneself	2

Discussion

Regional and cultural variations are present in CAM use, and it is more prevalent in Far East than West [9]. The prevalence of the use of CAM in cancer patients in Turkey has been reported to range between 39.2% and 60.1% in the literature [8,1]. CAM methods such as hypnotherapy, megavitamins, homeotherapy, relaxation, yoga, and meditation are used in addition to herbal products in the west (10). In Turkey, the use of herbal products is more prevalent [11]. The most frequently used herbal product in Turkey is urtica urens (stinging netle) [8]. In our study, the rate of herbal product use in Turkish cancer patients was found to be 35.7%. The products preferred the most included urtica urens, ginger, various mixtures, bee pollen, and green tea. In North America, the herbal compound “Essiac”, which became popular with a Canadian nurse Rene Caisse, was reported to be one of the most commonly used herbal products. Although “Essiac” is recommended often by herbalists, its anticancer effects have not been demonstrated in the studies that have been performed [10].

Conflicting findings have been reported about factors that affect the use of herbal products. The prevalance of herbal products has been reported to be higher in patients with high socioeconomic and education levels and in women; furthermore, those using herbal products tend to be younger than those who do not [10]. In our study, a positive correlation was found between a patient’s education level and awareness of the disease and their use of herbal products. The rate of herbal product use in women (35%) and in men (36%) were comparable in our study.

In the patients followed up in our clinic, the use of herbal products showed a statistically significant increase as the education level rose, which was comparable with the literature [10]. While the rate was found to be 5% in uneducated patients, it increased to 54% in university graduates. We believe that this result is related to the fact that as the education level of patients increases, they take more initiative and are more involved in their treatment. On the other hand, Ceylan et al [12], in a more recent survey in Turkey reported patients who have less

education and who were born in villages were most likely to use CAM. Ezeome et al [13] also found a non-significant tendency for use of CAM to decrease with increasing levels of education. However, they could not detect an association between use of CAM and socioeconomic status in their patients.

In previous studies, the reasons leading to CAM practices were suggested to include dissatisfaction with standard medical therapies, the need of the patient to control of decisions being made about the disease, and acceptance that CAM practices are more natural and less harmful [14]. However, herbal products can lead to side effects when taken in combination with chemotherapy. These side effects can reach much more dangerous dimensions in patients with renal and hepatic dysfunction [15]. Most of our patients in Turkey found these products safe while a small number reported that they experienced side effects related to these products. In addition, most of the patients thought that these products had a positive influence on the treatment process. Although potential side effects of herbal products used in high doses or in combination with chemotherapy have been reported [16,17], the rate of side effects reported in our study was low. This can be explained by the assumption that our patients attributed any side effects to other factors since they believed these products were natural and harmless.

Most of our patients used supportive products in combination with their standard medical treatment, and only 55.6% informed their physicians about this subject. However, the physicians also did not ask their patients questions about the use of herbal products when planning treatment. According to these results, the physician who is in charge of a patient's treatment is generally not aware of the additional herbal products being used. The patients in the literature reported that they hid the use of CAM from their physicians because they were afraid that they would get a negative response. When examining the conditions in Turkey, the disconnection between the physician and the patient concerning the use of CAM seems to be related to the fact that the patients accept these products to be natural and harmless. However, it can also be explained by the physician's lack of information about CAM in their medical education and the high number of patients per physician.

The effect of the use of CAM on the economy can be enormous. For example, in the United States, the number of patients visiting CAM physicians was 427 million in 1990, and this increased to 629 million in 1997. The estimated cost for the use of CAM in 1997 was between 12 and 27 billion dollars [15]. However, we observed that our cancer patients spent only 50 Turkish Lira (TL) or less monthly for herbal and supportive products (n=76, 78.3%). However, the low cost of using herbal products in our study may be related to the generally low income of our patients and the fact that these products are not reimbursed by the Health Care Insurance Institutions.

Herbal products are included among CAM methods, which are not a part of the medical education curriculum in medical faculties. The use of herbal products in the population is rather prevalent among cancer patients as well as in patients with chronic diseases due to different motivations. In this context, there seems to be a disconnection in the communication between the patients and the physicians. Herbal products, which are perceived to be safe by the patients, may cause severe adverse effects. There is a need to increase the awareness of the physicians and educate the general population about herbal product use.

Competing Interests

The authors declare that they have no competing interests.

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