

ORIGINAL ARTICLE

The prevalence of usage of herbal medicines among cancer patients

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Summary

Purpose: To study the prevalence of the usage of herbal medicines among cancer patients.

Methods: This study was carried out between October 1, 2009 and May 31, 2011, by using face-to-face interviews with cancer patients attending oncology departments (clinics and outpatient clinics, chemotherapy units). A special questionnaire was filled in during the interviews.

Results: Of the patients 68.2% reported usage of herbal medicines, 66% stated that their usage of herbal medicines was based on the media and the Internet as a source and 64% stated that they received information about herbal medicines from relatives and friends. Only 24% of herbal

medicines users had consulted or discussed their use with a physician.

Conclusion: In Turkey, especially among cancer patients, there is a high prevalence of complementary and alternative medicine (CAM) usage and the most commonly used form of CAM is herbal medicines. This prevalence has also been found to be high in our research as well. Due to the probable side effects and potential drug interactions of herbal agents, all cancer patients should be asked about their use of herbal medicines.

Key words: cancer, complementary/alternative medicine, herbal medicines

Introduction

In general, complementary and alternative medicine (CAM) is not a part of conventional medicine. However, it is used to different extents among cancer patients in our country and in the world [1-4]. Today CAM has an increasing range of uses. There are many alternative and complementary treatment forms such as homeopathy, ayurveda, musicotherapy, herbal products, osteopathy, reiki, yoga, electromagnetic therapy, prayer, naturopathy and massage. Many cancer patients use CAM to get better, for the treatment of their disease itself, or to improve the side effects of cancer-related treatments. Some patients choose to use it to prevent recurrence of the cancer, as a substitution for conventional treatments or as a last hope. On rare occasions, the usage of CAM may replace conventional medicine. In 14 Euro-

pean countries, including our country, CAM usage among cancer patients varies from 15 to 73% [1]. Moreover, there are studies reporting that the most common CAM method in our country is herbal medicine [5-12].

In this study, the prevalence of CAM usage and the forms of herbal medicine used by cancer patients was investigated.

Methods

This study included 472 patients attending oncology departments (clinics, outpatient clinics, and chemotherapy units) in two different hospitals (Ankara Ataturk Training and Research Hospital and Istanbul Sisli Etfal Training and Research Hospital) by face-to-face interviews and a special questionnaire was completed between the 1st of October 2009 and the 31st of May 2011.

Table 1. Distribution of patients according to the use of herbal medicine and tumor location

Tumor location	Herbal Medicine (+)		Herbal Medicine (-)	
	N	%	N	%
Respiratory tract	76	16.10	44	9.32
Gastrointestinal system	83	17.58	32	6.77
Breast	50	10.59	21	4.44
Urologic tumors	43	9.11	20	4.23
Gynecologic tumors	36	7.62	18	3.81
Hematologic malignancies	19	4.02	12	2.54
Skin	6	1.27	1	0.21
Bone-Connective tissue tumors	9	1.90	2	0.42
Total	322	68.19	150	31.74

Table 2. Herbal medicines used by patients in this study

Herbal agents	N	%
Nettle(<i>Urtica dioica</i>)	168	52.0
Garden thyme(<i>Thymus vulgaris</i>)	91	28.2
Ginger(<i>Zingiber officinalis</i>)	78	24.1
Black cumin(<i>Nigella sativa</i>)	72	22.3
Turmeric(<i>Curcuma longa</i>)	45	13.9
Senna(<i>Cassia acutifolia</i>)	42	13.0
Peppermint(<i>Mentha piperita</i>)	42	13.0
Blackberry(<i>Rubus caesius</i>)	25	7.7
Parsley(<i>Carum petroselinum</i>)	24	7.4
Black pepper(<i>Piper nigrum</i>)	24	7.4
Garden sage(<i>Salvia officinalis</i>)	23	7.1
Milk thistle(<i>Silybum marianum</i>)	21	6.5
Garlic(<i>Allium sativum</i>)	21	6.5
Cinnamon(<i>Cinnamomum zeylanicum</i>)	20	6.2
Daisy(<i>Bellis perennis</i>)	20	6.2
Lime flower(<i>Flos tiliae</i>)	20	6.2
French lavender(<i>lavendula stoechas</i>)	12	3.7
Chinese tea(<i>Camellia sinensis</i>)	11	3.4
Hip(<i>Rosa canina</i>)	10	3.1
Flaxseed (<i>linum usitatissimum</i>)	10	3.1
Sweet basil(<i>Ocimum basilicum</i>)	8	2.4
Lemon balm(<i>Melissa officinalis</i>)	6	1.8
Rosemary(<i>Rosmarinus officinalis</i>)	6	1.8
Myrtle(<i>Myrtus communis</i>)	6	1.8
Carob(<i>Cerotonia siliqua</i>)	6	1.8
Celery(<i>Apium graveolens</i>)	5	1.5
Saffron(<i>Crocus sativus</i>)	3	0.9
Radish(<i>Raphanus sativus</i>)	2	0.6
Common fennel(<i>Foeniculum vulgare</i>)	2	0.6
Coltsfoot(<i>Tussilago farfara</i>)	2	0.6
Dead-nettle(<i>lamium album</i>)	1	0.3
Yarrow(<i>Achillea millefolium</i>)	1	0.3

Table 3. Side effects reported by patients who used herbal medicines

Side effects	N=38	%
Nausea	15	39.4
Abdominal pain	10	26.3
Diarrhea	5	13.1
Rash	4	10.5
Itching	3	7.8
Headache	3	7.8
Constipation	2	5.2
Vomiting	1	2.6

Statistics

SPSS 17.0 Program was used for statistical analyses. Jark-Bera test was performed to evaluate whether the data were normally distributed or not. Chi-square test was used for the analyses and a p value<0.05 was considered as statistically significant.

Results

Of the 472 patients enrolled in the study, 228 (48.3%) were females and 244 (51.7%) males. Their median age was 55 years (range 21-76). The distribution of the patients by type of cancer was as follows: 25.4% respiratory tract cancer, 24.1% gastrointestinal cancer, 14.7% breast cancer, 13.5% urologic cancer, 11.3% gynecologic cancer, 6.3% hematological malignancies, 2% bone and connective tissue tumors, and 1.6% skin cancer. The number of patients who used herbal medicines was 322 (68.2%), and the number of the patients who did not was 150 (31.7%; Table 1).

Herbal medicine users were taking many different herbs. The usage rates of the most common herbs were nettle (52%), thyme (28.2%), ginger (24.1%), black cumin (22.3%), turmeric (13.9%), senna (13%), peppermint (13%) and others (less than 13%) (Table 2). Thirty-eight of the patients who used herbal medicines reported various side effects. Among these, the most commonly reported side effects were nausea (39.4%) and abdominal pain (26.3%) (Table 3).

When the herbal medicines users were analyzed by age, gender, educational level, place of residence, income level and disease stage, no statistical differences were found (Table 4).

Only 24% of the patients reported to their physicians that they used herbal medicines. The patients became aware of the herbal treatments from the media and the Internet (66%), and 64% from other patients, their relatives and friends.

Table 4. Patient and disease characteristics

Characteristics	HM ⁺ (N=322)	%	HM ⁻ (N=150)	%	<i>p</i> -value
Gender					0.140
Female	163	71.49	65	28.5	
Male	159	65.16	85	34.83	
Age, years					0.121
<50	149	71.98	58	28.01	
>50	173	65.28	92	34.71	
Education /years					0.904
<11	274	68.32	127	31.67	
>11	48	67.60	23	32.39	
Place of living					0.741
Rural	23	65.71	12	34.28	
Urban	299	68.42	138	31.57	
Income/monthly (€)					0.644
<200	173	67.31	84	32.68	
>200	149	69.30	66	30.69	
Disease stage					0.559
Local	189	70.00	81	30.00	
Locally advanced	97	66.44	49	33.56	
Metastatic	36	64.28	20	35.71	

HB: herbal medicine

Discussion

In general, CAM use among cancer patients shows a gradually increasing trend [13,14]. The most commonly used CAM is herbal medicine and many herbal products are used to this end. Some of these products (garlic, mint, etc) are already consumed according to normal consumption patterns, however they are generally consumed more frequently and in greater amounts for CAM. Other herbal products are not included in people's daily food consumption, and they are only used for CAM purposes by cancer patients. In cancer patients and in patients with chronic illnesses, seeking of alternative treatments may exist in different frequencies. Perceptions and beliefs of patients about conventional treatments, concerns about side effects, the progression of disease relative to treatment, previous negative experiences, and death of a relative from cancer despite treatment may be some of the reasons patients tend to use CAM. An important factor which leads patients to use CAM may be poor communication between the medical staff and the patient [15].

In our study, nettle ranked first among herbal medicines, followed by thyme, ginger, black cum-in and turmeric. Investigations conducted in our country revealed that the most commonly used herbal medicine is nettle [5,7,12]. Leaves, seeds, and occasionally roots of nettle are commonly

used in our country in popular medicine. It grows spontaneously in uncultivated fields and It is considered to have anti-diabetic, anti-inflammatory, and diuretic effects. Anti-proliferative efficacy on epithelial prostatic cancer cells has been demonstrated [16]. Turmeric, which is the source of curcumin, a non-toxic polyphenol, is a plant which has been demonstrated to have suppressive effect on tumors, like colorectal tumors [17]. The anti-emetic effect of ginger has been demonstrated in some studies [18,19]. There are publications reporting anti-cancer activity of nigella sativa [20] and the anti-proliferative effect of carvacrol, contained in thymus vulgaris [21].

In many studies it is obvious that most of the patients who use CAM do not report this usage to their physicians [6,10,22,23]. Similarly, in our study, 76% of the patients did not report their herbal medicine use to their physicians. The underlying reason of this behavior may be the concern of getting a negative reaction should they report their CAM use. We claim that attitudes of healthcare professionals towards patients using CAM should be positive, not indecisive or negative.

Because of these different attitudes, patients may refrain from stating that they are using CAM. When talking to patients who use CAM, healthcare professionals should behave in an unbiased manner and ensure open communication. Ap-

proaches such as informing patients, making mutually-agreed upon decisions with them and assessing the options with them before and during all stages of conventional treatment may prevent unconscious and unreported use of CAM.

Due to the probable side effects and potential drug interactions of herbal agents, all cancer patients should be asked about their usage of herbal agents. Patients seek to use CAM in addition to their conventional treatments with expectations such as prevention or reduction of the side effects of their treatments or improvement of their quality

of life [24]. Therefore CAM might be commonly used.

In conclusion, in parallel with previous studies, this study found that most of the patients who use herbal medicine do not report this to their physicians. While registering anamnesis, patients should especially be queried on this matter. Moreover, it is clear that detailed investigations on side effects, influence on conventional treatments and drug interactions of the agents used in herbal medicine in our country and the world should be conducted.

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