

THE USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE AMONG CANCER PATIENTS UNDERGOING CONVENTIONAL TREATMENT: A SINGLE-CENTRE EXPERIENCE

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SUMMARY

Background: The alternative medicine is increasingly accepted by modern man. People realize that healing based on natural methods is much more affordable and not more aggressive than taking potent drugs of synthetic origin. The aim of this study was to collect data on the use of complementary agents and alternative medicine in cancer patients treated at the Oncology Clinic of the University Clinical Hospital in Mostar.

Subjects and methods: We conducted a cross-sectional study that included 100 patients. Data were collected from a questionnaire compiled for this research, which comprised two groups of questions. The first group examined the sociodemographic characteristics of the respondents, and the second the modalities of using Complementary and Alternative Medicine (CAM), and health and conceptual reasons for use.

Results: A total of 72 patients (72.0%) had used a CAM during their anticancer treatment. Only 23% of patients had used CAM before the diagnosis of cancer. Among them, 26 (36.1%) previously discussed the topic with their oncologist. CAMs ranged from herbal medicine (58.3%), cannabinoid oil (19.4%) and different vitamins and minerals (22.2%). CAMs were mainly used to improve the health (40.3%). Among patients who used CAM only 25% find it financially demanding, 90.3% of patients were satisfied with effects of CAMs, and 78.1% would recommend it to other cancer patients.

Conclusion: Our data showed that in our region, many patients used complementary and alternative methods of treatment. These results are very important because they provide information and give a clearer picture of the use of CAM among cancer patients and, accordingly, the right approach of the health practitioners to the patient, leading to optimized cancer therapy and increased safety.

Key words: neoplasms - drug therapy – radiotherapy - complementary therapies

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INTRODUCTION

Cancer is one of the world's largest public health problems and the second leading cause of death, and its incidence increased worldwide from 1950 to 2005 because of sped up population aging in many countries and increased exposure to the various risk factors (Stark et al. 2002). According to a report by GLOBOCAN 2020, 14 673 new cases of cancer in 2020 have been estimated in Bosnia and Herzegovina (International Agency for Research on Cancer 2020).

And while science is expanding the boundaries of possibilities and skills in treating and maintaining health, the application of complementary and alternative methods of treatment is on the rise even in the developed world, although these methods completely go beyond scientific medicine. In Western Europe and America, between 20% and 30% of the population use an alternative medicine, and between 70% and 80% are interested in such treatment methods (Bauer & Rayner 2012). The term “complementary and alternative medicine” (CAM) is also used by the World Health

Organization (WHO) and defines anything other than classical or modern medicine. Using synthetic drugs and surgical procedures to treat a patient's medical condition only a few decades ago was known as a drug. Today, such a system of treatment is increasingly called conventional medicine and is most commonly applied in hospitals and clinics. Although this type of treatment is often expensive and invasive, but very good for emergencies, the benefits of conventional medicine should never be neglected or underestimated. Any medical treatment that is not in conventional medicine, and patients use it, is known as alternative medicine. It is a common name for hundreds of old and new skills, from limb bone adaptation, contraction, herbal treatment and homeopathy, to acupuncture, Chinese medicine, aromatherapy... All alternative methods used with conventional methods are known as complementary medicine (Dohranović et al. 2012).

The aim of this study was to collect data on the use of CAM in cancer patients treated at the Oncology Clinic of the University Clinical Hospital in Mostar.

SUBJECTS AND METHODS

Subjects

This was a cross-sectional study conducted at the Oncology Clinic of the University Clinical Hospital Mostar. Before the implementing the study, approval of the Ethics Committee was obtained. This study conforms to the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000). Participation in the study was voluntary and anonymous. All subjects signed an informed consent form after receiving a detailed description of the study. The study included 100 respondents. Data were collected between July and October 2020. Respondents were explained that the data is anonymous and fully protected and that it will be used only to write a thesis. The subjects were men and women, patients currently receiving chemotherapy and radiotherapy. Respondents who incorrectly/incompletely filled out the questionnaires were excluded from the survey.

Methods

The questionnaire was compiled for this research and comprised two groups of questions. The first group comprised sociodemographic data (gender, age, marital status, education, employment and type of cancer). The second group of questions examined the modalities of the use of CAM (medicinal herbs, homeopathy, chiropractic, bio-energy, acupuncture, diet therapy), and health and conceptual reasons for use.

Statistical analysis

IBM SPSS Statistics v. 23.0 was used for statistical analysis. We defined descriptive measures, including absolute value and percentages. Frequencies of nominal categorical variables were compared by the Chi-square test. Inferential analysis was performed by applying univariate analysis to examine the association between CAM use and demographic and clinical characteristics. $P < 0.05$ was an indicator of significance.

RESULTS

Baseline characteristics of the participants

The study included 100 patients from Oncology Clinic of University Clinical Hospital Mostar, the majority of whom were men (51%). Of the respondents, 2%, 8%, 15%, 37%, 30% and 8% were aged 25-34, 35-44, 45-54, 55-64, 65-74 and >74 years, respectively. Most of the participants (75%) were married and had a secondary level of education (75%). Most of the participants (55%) were retired. Most of the participants were patients with a diagnosis of gastrointestinal cancer (32%) and breast cancer (23%). Of the participants, 50% were under chemotherapy and 50% under radiotherapy. Baseline characteristics of the participants are presented in Table 1.

Table 1. Baseline characteristics of participants

Variables	n	%
Gender		
Female	49	49
Male	51	51
Age groups		
25-34 years old	2	2
35-44 years old	8	8
45-54 years old	15	15
55-64 years old	37	37
65-74 years old	30	30
>74 years old	8	8
Educational level		
Primary school	9	9
High school	75	75
College	16	16
Employment status		
Employed	18	18
Unemployed	27	27
Retired	55	55
Cancer type		
Breast cancer	23	23
Lung cancer	19	19
Gastrointestinal cancer	32	32
Urogenital cancer	7	7
Gynecological cancer	10	10
Other malignancies	9	9
Marital status		
Married	75	75
Unmarried	20	20
Type of therapy		
Chemotherapy	50	50
Radiotherapy	50	50
Duration of therapy		
<1 year	64	64
1-3 years	29	29
>3 years	7	7

CAM characteristics

A total of 72 patients (72.0%) had used a CAM during their anticancer treatment. Only 23% of patients had used CAM before the diagnosis of cancer.

Among them, 26 (36.1%) previously discussed the topic with their oncologist.

CAMs ranged from herbal medicine (58.3%), cannabinoid oil (19.4%) and different vitamins and minerals (22.2%).

CAMs were mainly used to improve the health (40.3%) (Figure 1). Among patients who used CAM only 25% find it financially demanding, 90.3% of patients were satisfied with effects of CAMs and 78.1% would recommend it to other cancer patients.

A univariate analysis was conducted to investigate the effects of demographic and clinical factors on CAM use (Table 2). We did not find a statistically significant association between CAM use and demographic/clinical factors.

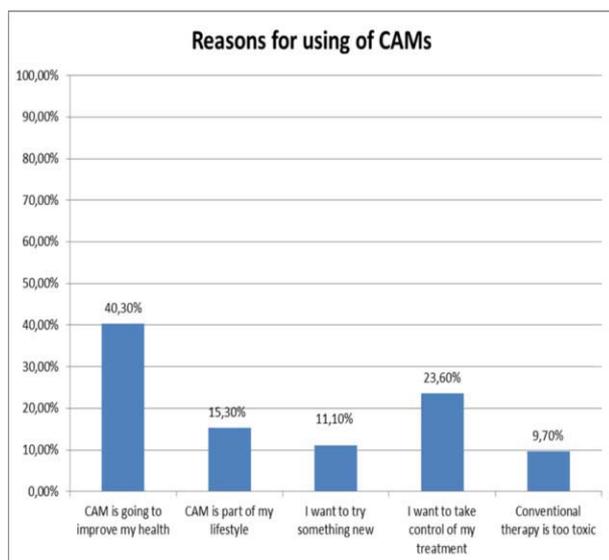


Figure 1. Reasons for using of Complementary and Alternative Medicine (CAM)

DISCUSSION

The described study examined the frequency of application of CAM in patients during treatment at the Oncology Clinic in Mostar.

72% of the respondents used CAM during their cancer treatment. Only 23% of them had used CAM before the diagnosis of malignant disease. Medicinal herbs were the most commonly used alternative. As a reason to use CAM, 40.3% of them stated it was because of belief it would improve their health. The majority of respondents did not inform the doctor about their use of CAM. Most patients were satisfied with the effect of complementary and alternative medicine.

There were several published studies on this issue (West 2018, Cevik et al. 2019, Wode et al. 2019).

The results of recent studies showed that the use of CAM is widespread among the general population of Western countries. For example, the estimated one-year prevalence in some countries ranges from 12.4% in Canada (Metcalf et al. 2010) to 44.0% in the United Kingdom (Posadzki et al. 2013) and 48.7% in Norway (Fonnebo & Launso 2009).

The results from the study among French cancer patients showed that over 80% of the cohort used a CAM during their cancer treatment. CAMs were mainly used to prevent/treat side effects of anticancer treatments (Gras et al. 2019).

Data from the systematic review in 2019 showed that the prevalence of CAM use in patients with cancer in the last 10 years was found to be slightly above half sampled populations (Keene et al. 2019).

The results of the study among cancer patients in Ontario showed that the number of patients who reported use of biologic products increased to 51.8% after a cancer diagnosis from 15.6% before a cancer diagnosis (Buckner et al. 2018).

Table 2. Univariate analysis of the association between complementary and alternative medicine (CAM) use and demographic and clinical factors of participants

Demographic and clinical factors	CAM use				p
	Yes		No		
	N	%	N	%	
Gender					0.92
Female	39	54.2	10	35.7	
Male	33	45.8	18	64.3	
Age groups					0.10
25-34 years old	1	1.4	1	3.6	
35-44 years old	6	8.3	2	7.1	
45-54 years old	12	16.7	3	10.7	
55-64 years old	27	37.5	10	35.7	
65-74 years old	20	27.8	10	35.7	
>74 years old	6	8.3	2	7.1	
Educational level					0.51
Primary school	5	6.9	4	14.3	
High school	55	76.4	20	71.4	
College	12	16.7	4	14.3	
Employment status					
Employed	16	22.2	2	7.1	
Unemployed	21	29.2	6	21.4	
Retired	35	48.6	20	71.4	
Cancer type					0.23
Breast cancer	21	29.2	2	7.1	
Lung cancer	14	19.4	5	17.9	
Gastroint. cancer	21	29.2	11	39.3	
Urogenital cancer	4	5.6	3	10.7	
Gynecol. cancer	7	9.7	4	14.3	
Other	5	14.3	3	10.7	
Marital status					0.61
Married	55	76.4	20	71.4	
Unmarried	17	23.6	8	28.6	
Type of therapy					0.37
Chemotherapy	38	52.8	12	42.9	
Radiotherapy	34	47.2	16	57.1	
Duration of therapy					0.66
<1 year	47	65.3	17	60.7	
1-3 years	21	29.2	8	28.6	
>3 years	4	5.6	3	10.7	

Data shows that many CAM users do not address this activity with their healthcare providers. Patients with cancer and their families are likely to expect that, despite its widespread support and acceptance in the general population, most healthcare professionals, including oncologists, do not endorse the use of CAM (Sait et al. 2014, Abuelgasim et al. 2018). In all cancer patients undergoing active conventional treatment, it is essential that the use of CAM is regularly examined since interaction with conventional cancer therapy and CAM and consequently related toxicities are possible (Yap et al. 2010).

The findings from this research are in line with results from previous studies in other countries. However, the CAM use and practices among cancer patients in Bosnia and Herzegovina are unknown.

Our study had some limitations: first, nature of the cross-sectional study design and second, small sample size in single institution which may not represent the entire population of the country.

Future study is required with a large sample of patients to provide representative population and to help in understanding patients' thoughts and perspectives more.

CONCLUSIONS

We found that most patients used CAM during their cancer treatment, and most of them were satisfied with the effect of it. These results are very important because they provide information and give a clearer picture of the use of CAM among cancer patients and, accordingly, the right approach of the health practitioners to the patient, leading to optimized cancer therapy and increased safety.

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Contribution of individual authors:

Inga Marijanović: study design, first draft, manuscript writing.

Tatjana Lasić: data collection, search literature and analysis, manuscript writing.

Marija Kraljević, Teo Buhovac and Timur Cerić: search literature and analysis, manuscript writing.

Emir Sokolović: statistical analysis and interpretation of data.

All authors approval of the final version.

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