

## Pattern of Complementary and Alternative Medicine Use in Cancer Patients: Prospective Analysis of Medical Oncology Unit

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**Abstract:** The aim of this study was to explore the use of Complementary and Alternative Medicine (CAM) in cancer patients. A prospective analysis was made in the department of Medical Oncology, Sri Ramachandra University. Data was collected through a descriptive questionnaire. A total of 86 patients was surveyed for the use of CAM. Of them, 12 (14%) used CAM. Reasons for using CAM included dissatisfaction with conventional medicines, additional boost up of immune power and endorsement from friends, etc. Data suggested that CAM use is not significantly higher in the general population. CAM users purchase their CAM medicines on their own without seeking medical advice. Though in the present study, no drug interaction was found, sometimes it may lead to the risk of drug interactions. Thus, research to generate information on safety and efficacy of CAM is required.

**Key words:** Complementary Medicine • Alternative Medicine • Cancer

### INTRODUCTION

Complementary and alternative medicine (CAM) is defined as that any diagnosis, treatment or prevention that complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual framework of medicine [1]. The reason of using CAM by CAM users report said that not so much as a result of being dissatisfied with conventional medicine, but largely because they found these health care alternatives to be more congruent with their own values and philosophical orientations toward health and life. Effectiveness and safety of CAM usage is questionable, however, studies have reported widespread CAM usage amongst cancer patients to increase the body's ability to fight against cancer, improve quality of life, strengthen the immune system and cope with the disease symptoms [2]. The present study aimed to determine the prevalence of CAM usage in oncology patients.

### MATERIALS AND METHODS

This was a prospective study conducted at the department of Medical Oncology, Sri Ramachandra Medical Centre (SRMC), Sri Ramachandra University situated in Tamilnadu, India. SRMC is a tertiary care multi-speciality hospital.

The study was evaluated and approved by the panel of expert members, including the Professor and Head, Department of Medical Oncology and Clinical Pharmacist. A structured interview-administered questionnaire was the instrument used for the study. The participants were explained about the purpose of the study. They were informed that accepting to participate in the study is taken as consent from them. The participants were assured utmost confidentiality of the information tendered during the interview.

### RESULTS

Table 1 shows the baseline characteristics of the study population. In this study, there were 52 (60.5%)

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male and 34 (39.5%) female patients participated. Most of the patients were in the age group of above 50 (54.7%). The majority of patients were from rural area (72.1%). Based on occupational status, the majority of the patients were skilled workers (35 patients with 40.7%), followed by 26 (30.2%) employed, 12 (14.0%) and 6 (7.0%) were self employed. Socioeconomic class of the study patients as per kuppuswamy scale of classification showed that majority of the patients were in Class II (52 patients; 60.5%) followed by Class I (14 patients; 16.3%), Class III (12 patients; 14.0%) and Class V (2 patients; 2.2%).

Of the 86 patients, CAM usage was found to be in 12 (14%) patients and 74 (86%) patients have not reported the use of any type of CAM (Table 2). Table 3 shows the types of CAM used by the student population. Of the 12 patients identified with CAM usage, 5 (41.6%) were using Ayurveda, 2 (16.73%) patients were using acupuncture, 1 (8.3%) were siddha, 2 (16.7%) used homeopathy and ayurveda + siddha each.

Table 1: Patients' demographic details

| Variables                     | Number of patients | Percentage |
|-------------------------------|--------------------|------------|
| <b>Gender</b>                 |                    |            |
| Male                          | 52                 | 60.5       |
| Female                        | 34                 | 39.5       |
| <b>Age in years</b>           |                    |            |
| 21-35                         | 13                 | 15.1       |
| 36-50                         | 26                 | 30.2       |
| > 50                          | 47                 | 54.7       |
| <b>Domicile</b>               |                    |            |
| Rural                         | 62                 | 72.1       |
| Urban                         | 24                 | 27.9       |
| <b>Educational background</b> |                    |            |
| Illiterate                    | 9                  | 10.5       |
| 1 to 10                       | 24                 | 27.9       |
| 11 to degree                  | 44                 | 51.2       |
| > degree                      | 9                  | 10.4       |
| <b>Occupation</b>             |                    |            |
| Skilled                       | 35                 | 40.7       |
| Unskilled                     | 12                 | 14.0       |
| Employed                      | 26                 | 30.2       |
| Self employed                 | 6                  | 7.0        |
| Others                        | 7                  | 8.1        |
| <b>Socioeconomic status</b>   |                    |            |
| Class I Upper                 | 14                 | 16.3       |
| Class II Upper Middle         | 52                 | 60.5       |
| Class III Lower Middle        | 12                 | 14.0       |
| Class IV Upper Lower          | 6                  | 7.0        |
| Class V Lower                 | 2                  | 2.2        |

Table 2: Prevalence of CAM usage in the study population

|               | Number of patients | Percentage |
|---------------|--------------------|------------|
| CAM users     | 12                 | 14         |
| Non CAM users | 74                 | 86         |

Table 3: Types of CAM usage in the study population

| Type              | Number of patients | Percentage |
|-------------------|--------------------|------------|
| Acupuncture       | 2                  | 16.7       |
| Ayurveda          | 5                  | 41.6       |
| Siddha            | 1                  | 8.3        |
| Homeopathy        | 2                  | 16.7       |
| Ayurveda + Siddha | 2                  | 16.7       |

## DISCUSSION

The present study data suggested that CAM use is not significantly high in the general population. This finding is similar to that reported by Fakeye *et al.* [3] where they recorded a low prevalence of CAM use among the adult oncology patients. When compared with females, male patients were found to be more user of CAM. This finding is not in support with previously published studies where women had a higher prevalence of use than men [4,5]. No correlation was found between the levels of education and occupation with the use of CAM. Other studies showed that age had no relationship with CAM users [6,7].

Various CAM products used by CAM users in the present study have been consistent with most frequently used CAM products in literature [5,8]. Fruits like pomegranate and papaya were the most commonly used by many patients. The biological products such as honey and herbal preparation were the most frequently used CAM products. This is supported by findings in the United States where herbal preparations were found to be the most common form of CAM used among the elderly [9].

CAM therapy is quite often considered as a safe and natural remedy with either no or minimal side effects. However, few studies have reported the possible side effects of CAM therapies such as ginseng and ginkgo when taken long with routine conventional medicines. In the present study, no patients experienced any sort of adverse effects of CAM products. This finding is in accordance with Fakeye *et al.* [3].

In the present study, patients who received chemotherapy for metastasis cancer were more likely to use CAM when compared with other types. However, the values were not predictive in multi-variate analysis. There is a controversial statement like some studies revealed the high usage of CAM in metastasis patients [10,11] and some studies suggested no correlation between CAM usage and metastasis patients [12].

The main reason for our study patients to use CAM therapy was that they had a desire to try all the possible way to cure the disease and its progression as well as to

enhance the overall immune power to fight against the disease. The same was observed by Hlubocky *et al.* [13] and Amin *et al.* [14]. During our data collection process we came to know that all the CAM users were satisfied with their CAM usage and they would like to continue in the future and also ready to recommend to others. Therefore, we assume that the satisfaction shown by our patients might be due to satisfaction towards their products and the expectations for CAM might be met.

### CONCLUSIONS

This study highlights a low prevalence of CAM usage amongst adult oncology patients, especially amongst metastatic cancer patients. All the patients used CAM along with and not instead of conventional medicine. The majority of patients used CAM to enhance the overall immune power to fight against the disease. In order to foster better patient-doctor communication, oncologists should be familiar with the commonly used CAM amongst patients, or at least be able to direct them to reliable sources of information.

### REFERENCES

1. Richardson, M.A., L.C. Masse, K. Nanny and C. Sanders, 2004. Discrepant views of oncologists and cancer patients on complementary/alternative medicine. *Support Care Cancer*, 12: 797-804.
2. Eisenberg, D.M., R.C. Kessler, C. Foster, F.E. Norlock and D. R.Calkins, 1993. Delbanco TL: Unconventional medicine in the United States. *N Engl J. Med.*, 328: 246-252.
3. Fakeye, T.O., R. Adisa and I.E. Musa, 2009. Attitude and use of herbal medicines among pregnant women in Nigeria. *BMC Complement Altern Med.*, 9: 53.
4. Barnett, M.C., M. Cotroneo, J. Purnell, D. Martin, E. Mackenzie and A.Fishman, 2003. Use of CAM in local African-American communities: community-partnered research. *J. National Med. Association*, 95: 943-953.
5. Bakhotmah, B.A. and H.A. Alzahrani, 2010. Self-reported use of complementary and alternative medicine (CAM) products in topical treatment of diabetic foot disorders by diabetic patients in Jeddah, Western Saudi Arabia. *BMC Research Notes*, 3: 254.
6. Ezeome., E.R. and A.N. Anarado, 2007. Use of complementary and alternative medicine by cancer patients at the University of Nigeria Teaching Hospital, Enugu, Nigeria. *BMC Complementary and Alternative Medicine*, 7: 28.
7. Singh, V., D.M. Raidoo and C.S. Harries, 2004. The prevalence, patterns of usage and people's attitude towards complementary and alternative medicine (CAM) among the Indian community in Chatsworth, South Africa. *BMC Complementary and Alternative Medicine*, 4: 3.
8. Paltier, O., M. Avitzour, T. Peretz, N. Cherny, L. Kaduri, R. M. Pfeffer, N. Wagner and V. Soskolne, 2001. Determinants of the use of complementary therapies by patients with cancer. *J. Clin Oncol.*, 19: 2439-2448.
9. Bruno, J.J. and J.J. Ellis, 2005. Herbal use among US elderly: 2002 National Health Interview Survey. *Annals of Pharmacotherapy*, 39: 643-648.
10. Richardson, M.A., T. Sanders, J.L. Palmer, A. Greisinger and S.E. Singletary, 2000. Complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology. *J. Clin Oncol.*, 18: 2505-2514.
11. Hyodo, I., N. Amano, K. Eguchi, M. Narabayashi, J. Imanishi, M. Hirai, T. Nakano and S. Takashima, 2005. Nationwide survey on complementary and alternative medicine in cancer patients in Japan. *J. Clin Oncol.*, 23: 2645-2654.
12. Owen, D.K., G. Lewith and C.R. Stephens, 2001. Can doctors respond to patients' increasing interest in complementary and alternative medicine? *BMJ*, 322: 154-158.
13. Hlubocky, F.J., M.J. Ratain, M. Wen and C.K. Daugherty, 2007. Complementary and alternative medicine among advanced cancer patients enrolled on phase I trials: a study of prognosis, quality of life and preferences for decision making. *J. Clin Oncol.*, 25: 548-554.
14. Amin, M., F. Glynn, S. Rowley, G. O'Leary, T. O'Dwyer, C. Timon and J. Kinsella, 2010. Complementary medicine use in patients with head and neck cancer in Ireland. *Eur Arch Otorhinolaryngol.*, 267: 1291-1297.