

## RESEARCH COMMUNICATION

# Attitudes of Patients to Alternative Medicine For Cancer Treatment

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### Abstract

Awareness of attitudes to different types of medicine is very important for establishment of cancer prevention programs. Alternative medicine has become an important feature of oncology regardless of geographic region, and in India, the majority of cancer patients present at late advance stage of disease when curative treatment cannot be initiated. Given the lack of facilities it is no surprise that many Indian cancer patients try various complementary and alternative medicines, despite the fact that little is known about their therapeutic efficacy and toxicity. A study was conducted in 300 biopsy proven cancer patients undergoing alternative cancer therapy with Psorinum in Kolkata. The main aim of the study was to analyze the patients'/ caregivers narratives regarding the therapy they have been trying. One hundred and ninety five patients (65%) have consulted their oncologists before trying this therapy. About 18.5 % of the patients expressed satisfaction with the therapy due to the holistic nature and team approach employed for patient management. The cost of the therapy was within the reach of many cancer patients belonging to the underprivileged segment of the society, contributing to its immense popularity in Kolkata. Whether this can be translated into a willingness to use similar natural compounds for cancer prevention and treatment purposes now needs to be analysed.

**Key Words:** Awareness - alternative cancer therapy – homeopathy - India

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### Introduction

Complementary and Alternative medicine (CAM) is a highly visible part of contemporary health care and has got an important role in palliative cancer care (Pal and Mittal, 2003). No longer restricted to the lay sector and the medical fringe, such practices can be found in mainstream hospitals and cancer centers (Pal, 2002a). In the United States and in other more developed countries many millions of patients spend billions of dollars each year on complementary and alternative medicine (Vicker and Cassileth, 2001). Many alternative cancer therapies like antineoplastons, hydrazine sulphate, shark cartilage, Cancell, Coenzyme Q 10, 714X are very popular in USA (Schraub, 2000; Cassileth and Chapman, 1996; Shukla and Pal, 2004). Immunoargumentative therapy in Bahamas, Essaic in Canada, Mistletoe in Europe, Chinese herbs in China and

Ayurveda in India are all very popular alternatives for cancer treatment. Proposal of 'miracle' cancer therapy without scientific evidence of effectiveness have been advocated numerous times in many different countries some of these have found the enthusiastic support of the local public and press (Lerner and Kennedy, 1992). One such example the Di Bella multi-therapy generated intense public interest in Italy few years ago (Pellegrini, 1998). Two Indian alternative cancer therapies 'Antineoplastin' and 'Methyl gloxal' also created a great deal of public interest in Kolkata (Pal, 2001).

There is widespread frustration among cancer patients concerning conventional medicine's inability to treat many cancers effectively. In the absence of real treatment gains for the majority of cancer and chemotherapy's side effects have become increasingly intolerable to many (Cassileth and Chapman, 1996). Focus on 'natural products' for gentler as well as more effective substitute for standard cancer

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treatment is a top priority now. In less developed countries majority cancer patient have less access to mainstream cancer treatment, many patients with cancer who live in these countries are never seen in a hospital (Sansom and Mutuma, 2002). Conventional care is rarely free and almost always beyond the reach of many. Lack of proper infrastructure (Sharma, 2001), complex social dynamics (Thomas and Sudhakar, 2000), ignorance (Chaturvedi et al., 2002) and above all absence of social security schemes plays an important role for selecting alternative cancer therapies that are replacement for the conventional treatment (Sureshkumar and Rajagopal, 1996). Very few scientific reports are available on the different alternative cancer therapies that are tried by the Indian patients. The present investigation was undertaken to access viewpoints on a popular alternative cancer therapy called Psorinum in northern Kolkata.

## Patients and Methods

### Settings

The present investigation was conducted in the clinic of the first author situated in northern Kolkata.

### Patients

The sample comprised of 300 tissue biopsy diagnosed cancer patients (179 men and 121 women ranging from 18 to 92 years, mean age  $59.2 \pm 11.98$  years).

### Inclusion & Exclusion Criteria

There was no fixed inclusion or exclusion criteria for patients who wanted to try this therapy, but the therapy was offered to those for whom conventional treatment was not recommended by oncologists considering poor prognosis

and doubtful treatment outcome. Some of the patients were treatment failure cases. Informed consent either verbal or signed was taken from each patient before starting the therapy.

### Interview

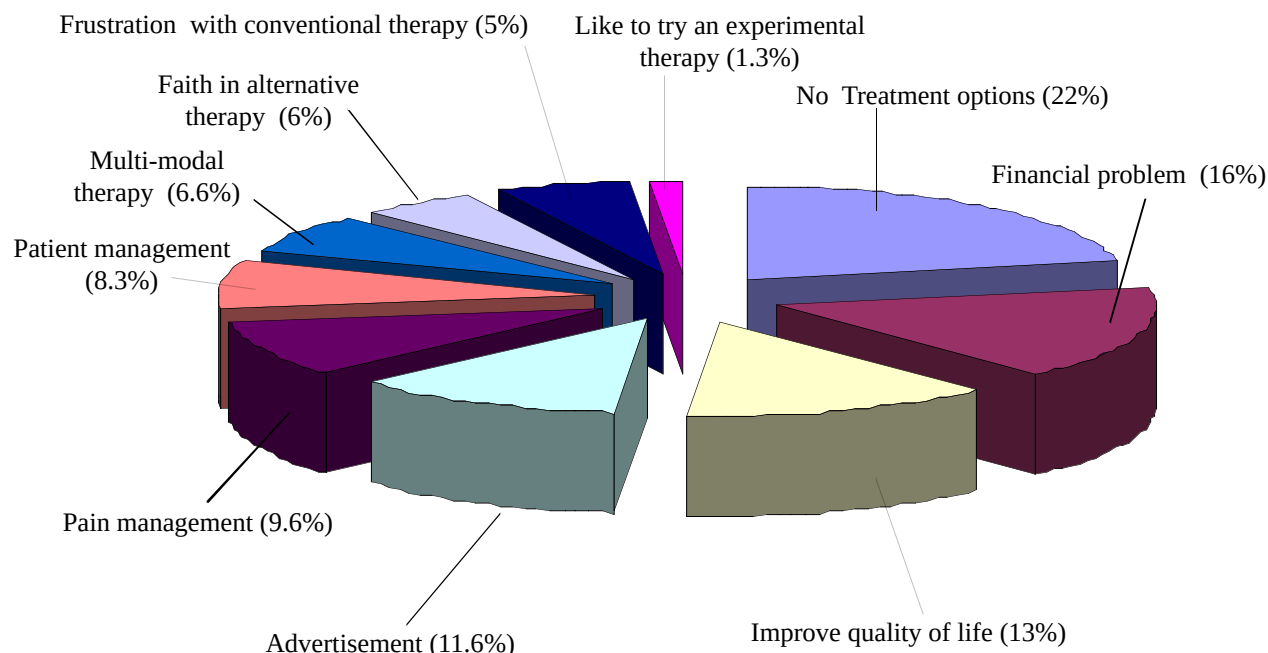
Detailed interview was conducted in 300 and 253 patients and/or their caregivers at the start and at the stoppage / 6 months after start of the therapy, respectively. The interview was aimed to record the feelings of the patients regarding the alternative cancer therapy.

### Monitoring Efficacy

The therapeutic efficacy of this alternative cancer therapy was assessed by the comparative study of the tumor / lesion size shrinkage. Decrease in tumor size, cancer related pain, drying-up of pleural effusion and ascites were considered as response. The changes in tumor / lesion size were monitored by roentgenogram, endoscopy, ultrasonography, nuclear scan or CT scan as applicable, after every 3-4 months.

## Results

One of the major reasons cited by patients for opting for this alternative therapy was no treatment options for treatment because of advance stage of the disease (22%), followed by economic problems (16%) and to improve quality of life (13%). About 11.6% of the patients were drawn to this therapy because of advertisement. Twenty nine (9.6%) patients wanted to try this therapy mainly for palliation. The other reasons stated by patients are illustrated in Figure 1. The details of the patients who have undergone the Psorinum therapy are given in the Table 1. The views of



**Figure 1. Patient Responses When Asked Why They Want to Trying Psorinum Therapy (N=300)**

**Table 1. Details of the Patients Who Tried the Psorinum Therapy**

|                                                                                                                   |     |
|-------------------------------------------------------------------------------------------------------------------|-----|
| Total number of patient interested to try this therapy                                                            | 300 |
| Patient who could not take the therapy due to co-morbid problems / or Died before the therapy could be initiated. | 15  |
| Patient in early stage of malignancy referred to conventional medicine                                            | 10  |
| Total number of patients actually tried this therapy                                                              | 275 |
| No. of patients received chemo or radiotherapy before starting therapy                                            | 47  |
| No. of patients received complete cycles of chemo / radiotherapy                                                  | 25  |
| No. of patients received incomplete cycles of chemo / radiotherapy                                                | 22  |
| Patients who dropped out / lost to follow-up                                                                      | 22  |
| Patients using other CAM or chemotherapy along with Psorinum therapy                                              | 15  |
| Patients where marked tumor regression was observed                                                               | 45  |
| Patients who had mild side effects with this therapy                                                              | 12  |

the patients and/or their caregivers who tried this alternative cancer therapy is given in Table 2. One hundred and fifty six (52 %) patients were from Kolkata, 65 (21.6%) were from other major cities of the state of West Bengal, and 39 (13 %) patients came from small townships and villages. Few patients 25 (8.3 %) were from the neighbouring country Bangladesh and 15 (5%) were from other states of India. A notable feature was the number of old patients, 159 (57.8 %) were either 60 years or more. One hundred and ninety five (65%) patients consulted their oncologists before coming forward to try this alternative therapy. Majority of the cancer patient trying this alternative therapy were in

palliative (64.7%) and terminal (31.6 %) condition respectively. The Psorinum therapy did not have any toxic side effects, although 12 (4.3 %) patients complained of mild oral irritation, skin allergy and gastritis. Around 37.9% of the patients (96/253) who took this therapy either had stroke or died of stroke related incidence.

## Discussion

Interest in alternative therapies is growing rapidly (Ernst, 2003). Some form of herbal therapy to treat cancer is popular throughout the world (Smith and Boon, 1999; Cassileth and

**Table 2. Patients views Who had Tried 'Psorinum' Therapy**

| Rank | Category             | Response                                                                                                                                                                                                                                       | No. of Patients<br>(N = 253) |
|------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 1.   | Management           | I like the holistic approach employed for patient management<br>Treatment was possible while staying in home<br>Blood transfusion, tapping of ascites, pleural paracentesis was possible with out leaving my home<br>Hospital visit less often | 47<br>(18.5%)                |
| 2.   | Belief               | After mark remission of my disease I believe that this alternative therapy works for cancer treatment<br>My patient had a remarkable improvement and complete shrinkage of tumor with this therapy                                             | 42<br>(16.6 %)               |
| 3.   | Frustration          | I was not given any guaranty regarding cancer cure<br>This therapy is not effective in all types of cancer<br>This therapy does not work in all terminal patients<br>We tried this therapy because of financial problems                       | 33<br>(13 %)                 |
| 4.   | Team Approach        | Though the therapy seemed infective in our case but we continued it because of the team effort of the doctor to manage our problems                                                                                                            | 26<br>(10.2%)                |
| 5.   | Guidance & Reference | The doctors have guided us in right direction.<br>The doctors helped and guided us in taking important decision.<br>Due to the reference of Dr. Chatterjee we could get an early appointment in hospitals for check-up                         | 25<br>(9.8%)                 |
| 6.   | Economic             | The 'Psorinum' therapy was quite cost-effective and promising<br>'Psorinum' therapy was quite inexpensive and effective in my case                                                                                                             | 21<br>(8.3%)                 |
| 7.   | Listening to patient | The doctor was ready for any discussion on cancer treatment<br>We felt more comfortable discussing any topic on cancer with him<br>The doctor gave more time listening to patient's problem                                                    | 20<br>(7.9%)                 |
| 8.   | No side effects      | The therapy is not having any side effects<br>No immediate toxicity was observed<br>No loss of hair                                                                                                                                            | 18<br>(7.1%)                 |
| 9.   | Pain                 | The therapy was effective in controlling of cancer related pain                                                                                                                                                                                | 16                           |
| 10.  | Continuation         | My tumor disappeared following 'Psorinum' therapy but reappeared after stoppage of the therapy I have to restart therapy<br>The therapy has to be taken for a very longer period                                                               | 5<br>(1.9%)                  |

Chapman, 1996). Natural products from plant are rich sources used for treating a number of diseases. In the field of anti-cancer therapy many active cytotoxic agent were originally developed from natural sources (Schwartzmann et al., 2002). Examples include etoposide from *Podophyllum peltatum*, vincristine from *Catharanthus roseus*, gemcitabine from *Crypthotheca crypta* and Paclitaxel from *Taxus brevifolia*. Traditional drugs have been the starting point for the discovery of many important drugs. Most of the herbal drugs are a mixture of a number of plant ingredients. The cumulative effect increases the efficacy of the drug in curing the disease (Palani et al., 1999). Essiac one of the most popular herbal alternatives in North America is also derived from 4 herbs (Kaegi, 1998). Iscador, a derivative of mistletoe, is a popular cancer remedy in Europe, has been used as folk treatment for centuries (Cassileth and Chapman, 1996). The homeopathic mother tinctures used in the Psorinum therapy contained alcoholic extract of various medicinal herbs viz. *Chelidonium Majus*, *Cardus*, *Hydrastis canadensis*. Earlier studies on homeopathic drugs like Arnica Montana, Ruta graveolens, Hypericum, Ginseng, Aconite has shown to provide radio-protection, mainly against sub-lethal X-irradiation in mice (Khuda-Bakhsh, 1995). Recent work of Pathak et al (2003) have shown that traditional homeopathic drug Ruta 6 derived from Ruta graveolens was found to be effective in inducing cell death in human (HL 60 and MGR1 glioma) and murine (K 1735 clone X 21) cancer cells and provide chemo-protection for normal human PBLs and B-lymphoid cells.

Great advances have been made in the treatment of some forms of cancer and new advances in surgery, radiotherapy, and chemotherapy has lead to an increase in cure rates, however, such interventions are often costly and beyond the reach of many cancer patients living in the developing world (Sikora, 1997). In the present investigation the major reasons the patients sites for going for this alternative therapy was no available treatment option and financial problems (Pal, 2002b). The majority of patients trying Psorinum therapy expressed satisfaction and felt emotionally stronger even though in many the medicines failed to produce any marked response.

The present study indicates that 15 patients (5.4 %) were irregular with the Psorinum therapy. This group of patient initially started the therapy but discontinued on the ground that they needed guaranty regarding their cancer cure. Raising false hope in vulnerable people can also be regarded as direct harm (Ernst, 2001). Hence, no patients participating in the Psorinum therapy were given any guaranty of cure. Many physicians find it surprising, but patients are usually the best judges of what works for them (Coulehan, 1999). Like earlier studies (Esinberg et al., 1993) we found that patients with higher levels of education and poor health status is likely to be an alternative medicine user. In the present study 65% of the patients were highly educated and some of them have even explored the Internet for cancer information. The patients were fully aware and convinced regarding the potential harm and benefit of the alternative

therapy they are exploring and have consulted their oncologists. In contrast to earlier studies conducted in western countries (Crocetti et al., 1998; Morris et al., 2000), the number of female patients trying this therapy was low. One of the many reason for this differences was this therapy was not offered to patients suffering from breast and cervical cancer. The incidence of cancer is rising rapidly in the developing world consequent to increase longevity due to control of infectious diseases, tobacco abuse and environmental degradation. The biggest challenge before the clinicians now concerns the management of the rising incidence of cancer in developing countries, with little prospect of more resources becoming available to fight the disease (Mittra, 1999). In this scenario it is emphasized that general practitioners and paramedical staffs should play a greater role in cancer awareness and detection as well as management (Gangopadhyay and Mallik, 2003). It is estimated that above 50% cancers are curable if they are detected early and screening has got a major role in early diagnosis.

Indian cancer patients face multiple problems that are unique and specific to this country (Pal and Mittal, 2004). At present, about one million cases of cancer are diagnosed each year in India. Majority of patients are diagnosed in advanced stages of malignancy and hence curative therapy are not possible in them. Many terminal patients with cancer try various natural and herbal medicines for treatment (Pal and Mittal, 2003). The present investigation indicated that the alternative cancer therapy Psorinum is very popular among cancer patients even though in many this therapy was ineffective. However, anecdotal reports (Chatterjee et al., 1995; Chatterjee et al., 1999; Chatterjee et al., 2004) indicates that this therapy may be helpful in improve quality of life in some terminally ill cancer patients. The therapy is well tolerated and incidence of toxicity is less because of individual dosing (Pal 2002c). The cost of the therapy was within the reach of many cancer patients belonging to the underprivileged segment of the society, contributing to its immense popularity in Kolkata. Whether this can be translated into a willingness to use similar natural compounds for cancer prevention and treatment purposes now needs to be analysed.

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## References

- Cassileth BR, Chapman CC (1996). Alternative and complementary cancer therapies. *Cancer*, **77**, 1026 - 34.
- Chatterjee AK, Kundu PK, Bhakta RS, et al (1995). Non-conventional treatment of carcinoma: study of 52 cases. *Bull Calcutta School Trop Med*, **43**, 17-20.
- Chatterjee AK, Dutta SK, Bhakta RS, et al (1999). Use of Psorinum in the treatment of cancer. In: Verma A.K, (Ed.) Oral Cancer VI: 297 - 300. Macmillan India Ltd.
- Chatterjee AK, Ganguly SK, Mukhopadhyay G, et al (2004). Non-conventional treatment of tobacco related cancer gradually gets right perspective through Psorinum therapy. In: Verma A.K, (Ed.) Tobacco Counters Health III. Macmillan India Ltd. p 159 - 166.
- Chaturvedi P, Chaturvedi U, Sanyal B (2002). Alternative medicine and cancer patients in less developed countries. *Lancet Oncol*, **3**, 10.
- Coulehan J (1999). An alternative view: listening to patients. *Lancet*, **354**, 1467- 8.
- Crocetti E, Crotti N, Feltrin A, et al (1998). The use of complementary therapies by breast cancer patient attending conventional treatment. *Eur J Cancer*, **34**, 324 - 8.
- Ernst E (2001). Mistletoe for Cancer? *Eur J Cancer*, **37**, 9- 11.
- Ernst E (2003). The current position of complementary/alternative medicine in cancer. *Eur J Cancer*, **39**, 2273-7.
- Esinberg DM, Kessler RC, Foster C, et al (1993). Unconventional medicine in the United States. *N Engl J Med*, **328**, 246-52.
- Gangopadhyay S, Mallik S (2003). Role of general practitioners in cancer management. *J Indian Med Assoc*, **101**, 758- 9.
- Kaegi E (1998). Unconventional therapies for cancer: 1. Essiac. *CMAJ*, **158**, 897-902.
- Khuda-Bukhsh AR (1995). Alteration of X-ray effects by homeopathic drugs: a new approach in radio-protection. *Perspective Cytol Genet*, **8**, 649-63.
- Lerner IJ, Kennedy BJ (1992). The prevalence of questionable methods of cancer treatment in the United States. *CA Cancer J Clin*, **42**, 181- 91.
- Mitra I (1999). Cancer control in countries with limited resources. In proceedings of XV Asia Pacific Cancer Conference. Held in Chennai, India, p10.
- Morris KT, Johnson N, Homer L, Deb W (2000). A comparison of complementary therapy use between breast cancer patient and patients with other primary tumor sites. *Am J Surg*, **179**, 407 - 11.
- Pal SK (2001). Use of new cancer drugs in India. *Lancet Oncol*, **2**, 716.
- Pal SK (2002a). Complementary and alternative medicine: An overview. *Curr Sci*, **82**, 518-24.
- Pal SK (2002b). Use of alternative cancer medicine in India. *Lancet Oncol*, **3**, 394 - 5.
- Pal SK (2002c). A retrospective study on cancer patient using alternative medicine: the Psorinum therapy. In proceedings of 1<sup>st</sup> International Symposium on Ayurveda, Yoga and Naturopathy. Held in Mahatma Gandhi Institute of Medical Sciences, Sevagram, from February 1 – 2, p 47.
- Pal SK, Mittal B (2003). Importance of complementary and alternative cancer therapies in palliative oncology in India. *J Alter Comp Med*, **9**, 811- 2.
- Pal SK, Mittal B (2004). Improving cancer care in India: prospects and challenges. *Asian Pacific J Cancer Prev*, **5**, 224-6.
- Palani V, Senthilkumaran RK, Govindasamy S (1999). Biochemical evaluation of antitumor effect of Muthu Marunthu (a herbal formulation) on experimental fibrosarcoma in rats. *J Ethnopharmacol*, **65**, 257- 65.
- Pathak S, Multani AS, Banerji P, Banerji P (2003). Ruta 6 selectively induces cell death in brain cancer cells but proliferation in normal peripheral blood lymphocytes: A novel treatment for human brain cancer. *Int J Cancer*, **23**, 975-82.
- Pellegrini R (1998). Di Bella's method of curing cancer is becoming popular in Italy. *BMJ*, **317**, 352.
- Sansom C, Mutuma G (2002). Kenya faces cancer challenges. *Lancet Oncol*, **3**, 456 - 8.
- Schraub S (2000). Unproven methods in cancer: a worldwide problem. *Support Care Cancer*, **8**, 10 - 5.
- Schwartzmann G, Ratain MJ, Cragg GM, et al (2002). Anticancer drug discovery and development through the world. *J Clin Oncol*, **20**, 47s - 59s.
- Sharma DC (2001). India allocates fund for 'composite treatment systems'. *Lancet Oncol*, **1**, 2, 330.
- Shukla Y, Pal SK (2004). Complementary and alternative cancer therapies: past, present and the future scenario. *Asian Pacific J Cancer Prev*, **5**, 3-14.
- Sikora K (1997). Developing a global strategy for cancer. In: Proceedings of the XV Asia-Pacific Cancer Conference. Chennai, India, 7.
- Smith M, Boon HS (1999). Counseling cancer patients about herbal medicine. *Patient Educ Couns*, **38**, 109 - 20.
- Sureshkumar K, Rajagopal M R (1996). Palliative care in Kerala. Problem at presentation in 440 patients with advanced cancer in a south Indian state. *Palliative Med*, **10**, 293-8.
- Thomas K, Sudhakar K (2000). Health-care inequalities an Indian perspective. *The Lancet Perspective*, **356**, s35.
- Vicker AJ, Cassileth BR (2001). Unconventional therapies for cancer and cancer - related symptoms. *Lancet Oncol*, **2**, 226 - 31.