

## THE ROLE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) IN THE CONTEXT OF CANCER

There is hardly another disease with so profound impact on all levels of life of a human being than cancer. Cancer is a disease with multi-factor aetiology, inhomogeneous prognosis and course of the illness and often multi-morbidity. Cancer shows increasing incidence and is therefore a major challenge for any health system. The annual direct medical costs for cancer care in Europe have been estimated at €72 billion<sup>1</sup>.

Most of these costs are caused by the treatment of the primary disease (surgery, chemotherapy, radiation) and do not cover the huge efforts necessary to cover the secondary problems following the diagnosis of cancer. In an analysis of the US National Cancer Institute in 2010 the authors stress that in addition to the development of new technologies effort has to be spent in prevention, “to advance the science of cancer prevention and treatment to ensure that we’re using the most effective approaches,[...]which is especially important for elderly cancer patients with other complex health problems[...].”<sup>2</sup>.

EUROCAM believes that complementary and alternative medicine, CAM, has a place in the multi-pragmatic approach towards cancer both from the perspective of prevention, of treatment, and of social, psychological and nutritional guidance for re-integration and rehabilitation. A multidisciplinary approach is of paramount importance.

The increasing popularity of complementary and alternative medicine (CAM) among cancer patients has been well documented<sup>3</sup>. A survey among 956 cancer patients in 14 countries<sup>4</sup> demonstrated that 35.9% of them use some form of CAM (range among countries 14.8% to 73.1%). According to a systematic review<sup>5</sup> the prevalence of any CAM use (since cancer diagnosis) in children with cancer ranged from 6% to 91%. Herbal medicines (Western, Ayurvedic and Traditional Chinese) are the most commonly used CAM therapies, together with vitamins/minerals, homeopathy, mistletoe, acupuncture, spiritual therapies and relaxation techniques. The majority use CAM to increase the body's ability to overcome cancer or improve physical and emotional well-being, to help with side effects of treatment, to feel more ‘in control’ of their situation, to maintain a positive attitude on future life and to adopt and maintain an active coping style. Many seem to have benefited from using CAM.

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<sup>1</sup> Jönsson B & Wilking N (2007) A global comparison regarding patient access to cancer drugs. *Annals of Oncology*, 18 (Supplement 3).

<sup>2</sup> <http://www.nih.gov/news/health/jan2011/nci-12.htm>

<sup>3</sup> Evans MA et al (2007). Men with cancer: is their use of complementary and alternative medicine a response to needs unmet by conventional care? *European Journal of Cancer Care*, 16: 517–525

<sup>4</sup> Molassiotis A et al (2005). Use of complementary and alternative medicine in cancer patients: a European survey. *Annals of Oncology* 16: 655–663.

<sup>5</sup> Bishop FL et al (2010). Prevalence of complementary medicine use in pediatric cancer: a systematic review. *Pediatrics*, 125:768-776.

In addition to the clinical symptoms and the physical/pathophysiological impact of the cancer disease the receiving of the diagnosis of cancer is always a very frightening experience and many people remember the exact moment of hearing this devastating news. The experience can cause shock, trauma, depression, fear and anxiety and the feeling that one's life is spiralling out of control. In this situation the person can often feel like their body has let them down and they can lose confidence in themselves and their future. There is often a desire to look more deeply into their health in general and to find meaning in their lives as a whole.

### **Views on cancer from a conventional perspective**

Cancer is a disease process in which healthy cells have stopped functioning and maturing normally. The normal cycle of cell formation and death is interrupted and the newly mutated cancer cells begin to multiply uncontrollably, no longer functioning as an integral part of the body. As the process of mutated cell growth occurs, a healthy immune system will recognize this uncontrolled growth and will elicit a response by sending macrophages to the region for cellular phagocytosis of the mutated cells. Also, the immune system promotes the release of endogenous compounds to inhibit the uncontrolled cell growth. This process occurs almost daily in healthy humans and animals.

Conventional medicine considers cancer to be a localized disease and believes that if the primary tumour can be eliminated early by destructive means – surgery, radiation or chemotherapy – the patient will be cured. This is why for many years conventional medicine's approach to the treatment of cancer has been focused on these three traditional methods – surgery, radiotherapy and chemotherapy.

### **Views on cancer from a CAM perspective**

CAM health professionals, however, consider cancer to be a systemic disease, that is, a disease of the whole organism. They look for the cause of the 'breakdown of health' resulting from a deficiency or weakness in the immune system, the mental and emotional state of the patient, and make an analysis of the patient's overall health, strength and vitality. CAM health professionals take an individualised approach, designed to support and enhance the body's natural defences against cancer. This approach is non-invasive and designed to treat the whole person, rather than the site of the cancer.

Using an analogy, one could say that, whereas modern western oncology is focused on destroying the weed, complementary healthcare concentrates on the soil the weed grows in and on making the soil as inhospitable as possible to the growth and spread of the weed.

### **Different levels of approach**

One could say that cancer – in individually different ways – has an impact on all levels of a human being:

- *Physical-pathophysiological level:*

The expanse of a tumour may obstruct vital pathways, might cause pain and other symptoms. This is the realm of biomedical interventions which aim to reduce the tumour mass. However, several studies have shown that also CAM can contribute to these interventions (Schad et al,

2011; Orange et al, 2010; Seifert et al, 2011).

- *Vitality level:*

The vitality of cancer patients is often reduced whether this is caused by the disease itself or side effects of primary treatments. Most CAM methods have a high potential to stimulate salutogenesis i.e. the ability of the body to regain balance. The beneficial effect of CAM in reducing side effects is due to this potential (Piao et al, 2004; Ezzo et al, 2006; Kassab et al, 2009).

- *Psychological level and quality of life:*

Pain is a major problem with impact on quality of life. Several CAM methods have shown high potential to reduce cancer pain (Paley et al, 2009; Fellowes et al, 2004; Wilkinson et al, 2008). Most patients use CAM as a response to psychosocial needs as well as a need to actively cope with the disease and enhance overall quality of life. The influence of psychological response on cancer survival and the importance of psychological intervention have been highlighted by several cohort studies (Falagas et al, 2007). A hopeless/helpless response to diagnosis exerted a significant negative effect on disease-free survival for up to 10 years among a cohort of breast cancer patients (Watson et al, 2005). Many supportive approaches such as psychotherapy and other psychological procedures exist to help people during this difficult time of adjusting to a life-threatening illness (Blake et al, 1999; Chida et al, 2008; Dégi et al, 2006).

- *Individuality level*

Cancer, more than almost all other disease, has a severe impact on the person's individuality in most patients. Ordinary life stops for the duration, the essential things in life are re-prioritised?. The ability to cope is reduced. In this situation usually the patient experiences the necessary primary biomedical interventions as taking over more power over the own individuality. Depression often follows. In this situation CAM has a very high potential for improving the patient's self-confidence, the ability to cope and the will to take over again control of their life within the disease (Carlsson et al, 2004; Stephen et al, 2007).

By and large, CAM has the potential to provide a more holistic approach to care that embraces patients' psychological, emotional and spiritual needs. The emphasis is placed on supportive listening and explaining, professional help with social re-integration, help with regaining emotional balance, and a positive perspective on their future life. Additional advice on lifestyle, diet and self-help may also be provided by a CAM practitioner. Wherever the boundaries of conventional care are drawn, there may always be some patients who seek more holistic care by going outside the orthodox system.

### **Turning to CAM for additional support**

The study of Evans et al. showed that the majority of participants accepted and valued their conventional clinical treatment, using CAM alongside rather than instead of their conventional care, but that they turned to CAM for additional support in the following areas:

- 1) *Desire for active participation in treatment*

To counter a sense of passivity sometimes experienced in the acceptance of conventional treatment. Patients want to make active choices. Using CAM provides an avenue for self-help and enables them to regain a sense of control in the face of an uncertain future.

### *2. Desire for good communication*

In the Evans study patients reported experiences of poor communication with oncologists, revolving around lack of time to talk in depth, difficulty in 'making a connection' with clinicians and finding it hard to formulate and ask questions. CAM modalities provide the time patients need for good communication.

### *3) To relieve side effects of cancer treatment or symptoms of cancer*

Patients report an improvement in their subjective state of health after using CAM therapies, experiencing an increase in energy, better sleep quality and a reduction in fatigue and depression. CAM treatments relieve side effects of conventional treatments: reduction of nausea, vomiting, skin reactions, pain and analgesic medicines but also a reduction in the number of hospitalizations for serious side effects.

### *4) Desire for a more holistic approach*

Patients may perceive clinical treatment as rather limited and not particularly geared to individual needs. Many participants hope for psychological, emotional or spiritual support and they value the more individualized 'whole-person' approach with an emphasis on self-healing that typifies many CAM therapies, as an addition to the highly developed protocolled oncological programmes. They report a reduction in stress, depression, anxiety and panic attacks, feel more able to relax, and experience 'peace of mind', greater mental clarity and a positive attitude on future life (one of the most important!) through using CAM.

### *5) To reduce the spread of the disease and prolong life*

While improving quality of life is the major rationale for CAM use, there is a definite undercurrent of hope, particularly among the younger patients, that some therapies might have an anticancer effect (prolongation of remission periods) and slow/stagnate tumour growth (prolongation of survival periods), boost the immune system, making it easier to overcome the disease.

## **Developing evidence base**

The evidence base for the effectiveness of CAM for psychological support, symptom control in cancer and adverse effects of conventional cancer treatment is increasing. Cochrane reviews that have been published of the evidence of acupuncture, homeopathy, mistletoe therapy, herbal medicine or other naturopathic treatments, and aromatherapy/massage for cancer patients suggest that CAM therapies may have benefits on measures of Quality Of Life, psychological wellbeing, adverse effects of cancer treatments, or even impact on survival. Numerous references on the effectiveness of CAM therapies, including acupuncture, homeopathy, mindfulness-based stress reduction technique, massage, meditation, mistletoe, aromatherapy, reflexology, yoga, qigong and many others in cancer-related conditions such as dyspnea, dry mouth, hot flushes, nausea & vomiting, pain, procedure distress, and skin

reactions can be found at the website of the Research Council for Complementary Medicine<sup>6</sup>. A selection can be found in the bibliography.

### **Hospitals and clinics running a complementary cancer care service**

There are several hospitals and clinics in Europe that run an integrative cancer care service<sup>7</sup>. In particular anthroposophic hospitals have broad experience providing mistletoe therapy and a multi-professional team approach for cancer patients.

Referrals may come directly from healthcare professionals within related cancer services and research suggests some patients want their treatment choices valued and approved by their oncologists. Communication on the use of integrative modalities is a very difficult issue in oncological care. Often, patients do not tell their oncologists that they are using complementary medicine alongside mainstream medicine. Most often used 'complementary and alternative' treatments in those hospitals include anthroposophic medicine (mistletoe therapy), homeopathy and acupuncture. In addition to those methods most often used CAM therapies in outpatient settings include nutrition, mind–body therapies, psychological therapies, physical and 'hands-on' therapies, herbal medicines.

These and other therapies are also used quite commonly in a complementary fashion in private consultations with CAM practitioners.

### **Clinical Practice Guidelines**

In 2009, the Society for Integrative Oncology (Deng et al, 2009) issued evidence-based clinical practice guidelines for doctors to consider when incorporating complementary therapies in the care of cancer patients. Key points include:

- CAM therapies should never be used as a replacement for conventional cancer care or as a reason to postpone seeing a doctor about any problem.
- There is limited scientific evidence suggesting that some CAM approaches may be useful in managing some symptoms of cancer and side effects of treatment.
- At present, there is no convincing evidence regarding CAM use in preventing or curing cancer,
- Before using any CAM therapy, people who have been diagnosed with cancer should talk with the doctors who treat their condition—to make sure that all aspects of their cancer care work together
- Cancer patients need to make informed decisions about using CAM.

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<sup>6</sup> <http://www.rccm.org.uk/node/114>

<sup>7</sup> Integrative oncology centres in Europe include Humlegaarden (Humblebaek, Denmark); Vidarkliniken (Järna, Sweden); Bristol Cancer Help Center (Bristol, UK), Royal London Hospital for Integrated Medicine (London, UK); Gemeinschaftskrankenhaus Herdecke, (Herdecke Germany), Gemeinschaftskrankenhaus Hafelhöhe (Berlin, Germany), Filderklinik (Stuttgart, Germany), Paracelsus Krankenhaus (Öschelbronn, Germany), Hufeland Clinic (Bad Mergentheim, Germany); Klinik für Komplementäre und Integrative Medizin in der Zentral-Klinik Essen (Essen, Germany), Lukas Klinik (Arlesheim, Switzerland), Ita-Wegman Klinik, (Arlesheim, Switzerland).

The National Center for Complementary and Alternative Medicine (NCCAM) and the National Cancer Institute have written a brochure that can help: Thinking About Complementary and Alternative Medicine: A Guide for People with Cancer [www.cancer.gov/cancertopics/thinking-about-CAM](http://www.cancer.gov/cancertopics/thinking-about-CAM).

### Conclusion

CAM can contribute to the treatment of cancer:

1. Supportive primary treatment for tumour reduction
2. Supportive treatment of cancer symptoms (in particular vomiting and pain) and symptoms due to primary tumour-reductive treatments
3. Supportive treatment for anxiety, fear, depression
4. Supportive treatment for social re-integration, coping and active governance of life
5. Advise in life-changes, nutrition, and team-building with several professional groups
6. Giving a positive prospect for the future

In addition, CAM has the potential for the primary and secondary prevention of cancer through counselling on healthy lifestyle, nutrition and supporting the human power of 'salutogenesis'<sup>8</sup> throughout life.

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<sup>8</sup> Antonovsky, A (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11: 11–18

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