



Short Communication

Aromatherapy: Implementation in a French Comprehensive Cancer Center

Bénédicte Leclere Condis¹, Florence Jay Runner¹, Julien Bearenault¹, Myriam Aitichou², Bertrand Favier², Isabelle Delzano¹, Charlène Bigeard³, Agnès Arquillère⁴, Florence Veyret⁵, Christelle Baptista-Goux¹, Isabelle Ulrich¹, Bénédicte Mastroianni^{3*}

¹Care department, Leon Berard Cancer Center, Lyon, France

²Hospital Pharmacy, Leon Berard Cancer Center, Lyon, France

³Interdisciplinary Department of Oncology Support Care, Leon Berard Cancer Center, Lyon, France

⁴Socio-aesthetician, Leon Berard Cancer Center, Lyon, France

⁵Radiology Department, Leon Berard Cancer Center, France

***Corresponding Authors:** Bénédicte Mastroianni, Leon Berard Cancer Center, 28, rue Laennec F-69373, Lyon, France.

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Abstract

Continuous advances in cancer care are accompanied by the necessity to better support patients, and implementation of new alternatives beyond the scope of conventional medicine are regularly required. Integrative oncology, besides conventional specific care, provides a large access to complementary therapies guiding patients to become actors before, during, and after cancer treatment, and to improve their quality of life. We progressively implemented a structured procedure, to refer patients with any tumors to complementary therapies in an integrated care pathway. Aromatherapy was implemented in the management of patients receiving specific treatment (chemotherapy, immunotherapy) in a comprehensive cancer center, we report the prescriptions procedure, patient requirement's, and dedicated proposals.

Keywords: Aromatherapy; Integrative oncology; Supportive care; Cancer; Complementary medicine

Introduction

Improvement in cancer treatments increased patient life expectancy and personalised multidisciplinary approach contributed to globally improve patient overall quality of life. In

parallel, expectations of patients also evolved, with a strong desire to live as normally as possible i.e., to limit as much as possible the impact from any disease-related inconveniencies on their personal lives, and to explore innovative options beyond the scope of conventional medicine.

Integrative oncology (IO) combines conventional cancer practices based on the current evidence-based medicine with

Complementary Therapies [CT]. Whereas CT effectiveness is more difficult to demonstrate, such approaches are in greater demand by patients. IO is being increasingly used in most countries, so that conventional and non-conventional medicine can be approached as a whole. We progressively implemented at the French cancer center Centre Léon Bérard in Lyon, a dedicated supply of care with CT, as a complement to active cancer treatments.

We progressively implemented specifications related to the concept of Non-Medical Interventions (NMI) developed by Ninot. The CT available in our institution included psychological interventions (medical hypnosis, mindfulness psychotherapy, art therapy), digital interventions [1]. Patients also have access to acupuncture and/or acupressure and foot reflexology. A pneumo-oncologist recently supported a local initiative and offers from 2021, integrative oncology consultations including aromatherapy.

Implementation of aromatherapy in our cancer center

Aromatherapy is the use of essential oils (EOs) for therapeutic purposes. René-Maurice Gattefossé developed the concept [2], and Jean Valnet further explored EO medical use [3]. Modern aromatherapy requires the plant to be identified by its international botanical name, species, subspecies and variety if applicable. The chemotype should be specified for therapeutic use, the plant organ from which the essential oil is derived has to be indicated, the galenic form and route of administration should be detailed, the dose and duration of treatment has also to be specified. Olfactotherapy is a psycho-emotional method based on the use of odours and the vibration of certain essential oils. By acting on specific areas of the brain, the odorant molecules would allow the release of certain memories and emotions, and would thus contribute to recovering one's psycho-emotional balance. The synergy is a mixture of different EOs and/or vegetable oils (VO). These oils may have different properties, allowing the versatile mixture obtained to act at different levels, or generate various combinations, which may provide similar effects, allowing potentiation of the desired effect. We assume that EO psycho-sensory effect may help patients in oncology. Olfactory information uses the conscious system and the limbic system regulating vegetative functions. The dry inhalation stick allows to inhale EO by breathing slowly and deeply, several times during the day. When EO or a synergy of EOs is inhaled, active principles directly come into contact with the respiratory mucous membranes.

In 2017, alongside an increasing use of EO has been observed in patients and some health professionals/carers, and a growing media interest in CT, several diffusion protocols for the management of malodours have been tested in the inpatient ward. Subsequently, our institution and the Supportive Care Department proposed a steering committee to create, develop and structure a dedicated offer, while guaranteeing patient safety. The steering

committee planned regular multidisciplinary meeting gathering referral oncologist in CT, nursing managers, pharmacists, nurses, a socio-aesthician, a radiology technician and auxiliaries. An overview of the current situation was assessed, and reported entry points for EOs and respective training in EO use, we contacted care structures already using aromatherapy on a daily basis in order to specify how EO are introduced, and collect satisfactions and potential difficulties encountered. The steering committee received a basic training course in clinical aromatherapy with a hospital specialisation to propose a common base of knowledge and encourage reflexion between members. Two nurses were graduated with dedicated university diploma in 2021. Prescriptions for dry inhalation sticks and aromatic compresses began in 2021. Aromasticks appeared as the individual method the most suitable in hospital (safety of use, nominal use, no diffusion of odours to other patients) [4]. Besides a practical and playful character, they are also inexpensive. EOs selection resulted from a collaborative effort between oncologist, hospital pharmacist and nurses. One of the main challenges of the chosen associations was obviously to ensure the absence of drug interactions with specific oncology treatments. EOs are ordered by the hospital pharmacy, each hospitalization tray has a box set containing EO that can be prescribed, the sticks are prescribed by the doctors and then prepared by health professionals.

The members of the steering committee trained all the health professionals within the cancer center regarding the delivery procedure, the communication department from the institution and the meeting and information area relayed the ongoing protocol to the patients. A computer protocol for each synergy has been created and access allowed for all prescribers in the cancer center. The aromatic compresses are prepared by the health professionals, without the need of dedicated medical prescription but traced in the patient electronic file. An hospitalized patient may be prescribed a stick (or several sticks) and/or have a prescription at discharge to receive at home the synergy of interest.

EO use for anxiety management has been reported in the literature. Indeed, a recent meta-analysis suggests that inhaled use would improve symptoms of depression and anxiety in cancer patients [5]. A recent study reported that EO of lavender or peppermint would improve quality of sleep in cancer patients [6]. A meta-analysis of 10 randomized controlled trials supports improved sleep, with the most positive effect being observed using EO of lavender [7]. EOs in the management assistance of chemo-induced nausea/vomiting management is a well-known and already ancient practice [8]; however, misuses associated with risks have been reported, frequently related to an inappropriate use by patients. Peppermint must be used with caution to prevent potential hepatotoxicity, and any epileptogenic risk in patients likely to convulse [9]. A recently published systematic review

assessing the scientific interest of olfactotherapy in nausea and vomiting shows promising results, tempered by methodological limitations [10].

Three therapeutic axes have been implemented over 2021 to 2022:

- Managing anxiety and insomnia with a combination of *lavandula angustifolia*, *chamaemelum nobile*, *citrus sinensis* and *cananga odorata*.
- Managing nausea/vomiting with a combination of *citrus limonum*, *coriandrum sativum* and *zingiber officinale*.
- Odour management with a combination of *limonum*, *cinnamomum camphora cineoliferum* and *eucalyptus citriodora* Hook.

The contraindications were asthma or epilepsy history, participation in a therapeutic trial, pregnancy and children. The health professional providing the patient with the stick or the compress should explain the procedure. Each stick is personal and should be kept away from a heat source. Its duration of use is 2 months. The compress is used during the exam or treatment duration, then is throw away. The compress can be renewed up to 6 times per 24 hours.

1-year assessment and perspectives

More than 500 aromastick prescriptions were made in the first year. Similarly, to other CTs, patient and caregiver satisfaction, assessed orally, was significant. Health professionals are highly committed to proposing aromatic compresses to patients, allowing patient to discover EOs while waiting for the medical prescription of the aromastick. A research grant from the Gattefossé Foundation was provided to support smoking and/or cannabis cessation with EOs, in addition to conventional methods. We are also working on developing a synergy of EOs to be used in cutaneous application in patients hospitalized in palliative and end-of-life care Units.

User verbatims

“As a referral nurse for wounds and scarring, I accompany patients with advanced, sometimes smelly, wounds on a daily basis. The aromatic compresses are always appreciated by patients and very positive feedback are received. The most touching patient feedback: since using the aromatherapy compress, I am no longer afraid to invite friends or go out shopping... The aromatic compress and synergy developed specifically for this indication have enabled patients followed in our institution to improve their daily life. Easy to use aromatherapy helps patients in the hospital but also at home.”

“As a nurse in chemotherapy outpatient unit, a young patient in 3rd line treatment, remembering significant nausea and vomiting from her previous treatments, benefited from the nausea/vomiting

stick. Yesterday, she told me that her treatment administration was well tolerated, that she no longer takes metoclopramide post-treatment and recommends EO use to other patients she meets.”

“As a socio-aesthetician, I use the anti-stress compress for massages and relaxation treatments. I first do a work on breathing so that the patient gradually gets used to the smell while focusing on the breathing rhythm. Thus, I already have a state of relaxation before starting the treatment, so I arrive faster and more often to letting go.”

Conclusion

We report successful progressive implementation of clinical aromatherapy as complementary therapy in our cancer center. The simplicity in the use of aromatherapy, with complete respect to posology, approach, and concentration allowed a relatively rapid and large diffusion in the different departments, meeting a high satisfaction rate in patients and health professionals. Our work is being continued with research about support smoking and/or cannabis cessation with Eos.

Author Contribution statement

Author 1: Conceptualization

Author 2-3-4-5-6-7-8-9-10-11: review

Author 12: Conceptualization and Writing – original draft.

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