



REVIEW ARTICLE

An integrated approach to palliative care – a narrative review

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Abstract

According to WHO, palliative care is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. The goal of this therapy is to improve the quality of life and is focused on providing relief to the patients from pain, troublesome symptoms, physical stress and mental stress due to a serious illness. In India, cancer and other noncommunicable illnesses are becoming the major public health issues. The need of palliative care in India is immense but quite often there is little accessibility to palliative care services. The concept of *yapya* and *asadhya vyadhi* mentioned in Ayurveda are relevant in the context of palliative care. This article tries to explore the scope of panchakarma and allied procedures which can be incorporated with the conventional palliative care services to deliver the best outcome to the sufferings. An integrated approach of Ayurveda along with conventional management can provide better outcome for the complex needs of seriously ill patients and their families.

Background

Non-communicable diseases (NCD) are estimated to account for more than 71% of global mortality with low- and middle-income countries bearing 77% of the burden¹. Among these the number of patients with cancer, autoimmune diseases, congestive heart failure, COPD, neurodegenerative diseases, end stage renal disease, motor neuron disease, metabolic disorders are alarmingly increasing. Such diseases lead to crippling deformities in the end stage of life that demands special care to those patients. As per the Global Atlas of Palliative Care that published on 2020, over 56.8 million people worldwide are estimated to require palliative care every year including 31.1 million prior to and 25.7 million near the end of life.² The majority (67.1%) are adults over 50 years old and at least 7% are children.

The patients with life threatening illness need physical (viz. pain, urine & bowel related issues, bed sores, fatigue, lack of nutrition), emotional (viz. anger, anxiety, stress, depression) and social support to improve their quality of life. The aim of palliative care is to meet these demands of the patients.

Pain management is an important part in palliative care.³ Currently it is addressed by the pain killers, the continuous use of which will lead to other harmful effects to the patients. This is a limitation in current palliative care services. Also the emotional disturbances of the patients could not be managed well with psychiatric drugs alone. There should be a need of integration of other system of medicines such as Ayurveda to face these hurdles.

Ayurveda can play a major role in the field of palliative care services through its holistic approach. Ayurvedic interventions such as *snehana*, *swedana*, *vasti*, *murdha taila*, *vrana karma*, *nasya*, *gandoosha*, *dhupana*, etc. are potential intervention in improving the quality of life of end stage patients.

Rationale

Less than 3% of the population in India receive palliative care services although the total number of people who need palliative care is estimated to be 6 million people per year in India.^{4,5} Even in high-resource systems like the United States, one-third of hospitals there with more than 50 beds do not have any palliative care service⁶. In the present scenario conventional medicine alone is not sufficient to accomplish huge demand of palliative care and end stage life care so the scope of bringing alternative medicine also into the mainstream and providing an integrated approach for the palliative care seems to be imperative.

Panchakarma, being the main potential of Ayurvedic medicine, its curative preventive, promotive and rehabilitative aspects can be well utilised for the palliative health care services⁷. This article tries to explore the scope of panchakarma and allied procedures which can be incorporated with the conventional palliative care services to deliver the best outcome to the sufferings.

Review of literatures

The word Palliative or palliation is derived from Latin word “palliare” which means to cloak or in other words to mask, to cover up, or to mitigate.⁸ According to WHO, palliative care is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness⁹. Palliative care is the approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Palliative Care Services in India and the Kerala Model

In India, cancer and other noncommunicable illnesses are becoming serious public health issues. The incidence of cancer alone has risen from 1 million in 2012 to 1.5 million in 2018.¹⁰ A multidisciplinary approach to management of cancer-like life threatening diseases is required, and palliative care is an essential component of such approach. It is projected that about 5.4 millions of Indian patients require palliative care every year.¹¹ Although the need for palliative care in India is immense, there is little accessibility to palliative care services.

Palliative care began in India in 1986 with the establishment of the Shanti Avedna Sadan, a hospice in Mumbai. It opened two more branches during the next five years, one in Delhi and the other in Goa, but patients outside of these hospitals had no access to palliative treatment. In the 1990s, there were two big advancements. One was the establishment of the Pain and Palliative Care Society (PPCS) in Calicut, Kerala, India, in 1993. The other was the establishment in 1994 of the Indian Association of Palliative Care.¹² A study carried out in 2008 has identified 138 hospice and palliative care services in 16 states and union territories.¹³ With the exception of Kerala, where services are more decentralised into community-based network, palliative care services in other part of the nation are mainly centred in metropolitan cities and regional cancer care centres. In fact, palliative care for patients in rural areas should always be in priority¹⁴. Kerala’s network includes more than 60 units and serves a population of more than 12 million people, making it one of the world’s largest networks¹⁵. Notably, Kerala was the first state in India to announce a palliative care strategy in April 2008. The Calicut-based experiment is sought as a model for delivery of palliative care in India¹⁶.

Use of complementary and alternative medicine in palliative care

In a survey, it has been found that almost 90% of breast cancer patients, 42% of those with lung cancer, and 50% of those with rectal cancer have used Complementary and Alternative Medicines (CAM) and supplements even during radiotherapy.¹⁷ A systematic-review concludes that CAM may provide a limited short-term hospice and palliative care benefits in patients with symptom burden.¹⁸ Because of this public interest and encouraging evidence that CAM lowers suffering and improves quality of life Integrative Palliative Care (IPC) has been integrated into a few standard hospice and palliative care centres in US.¹⁹

Acupuncture, transcutaneous electrical nerve stimulation, supportive group therapy, self-hypnosis, and mas-

sage therapy may be used to relieve pain in cancer patients or those who are dying. Pain from oral mucositis can be reduced with relaxation and imagery. To relieve dyspnoea, patients with severe chronic obstructive pulmonary disease may benefit from acupuncture, acupressure, muscle relaxation, and breathing retraining.²⁰ Similarly, non-interventive techniques like pet therapy, music therapy, massage therapy, art therapy, and energy therapies are the top five most commonly offered CAM modalities to patients.²¹

Scope of Palliative Care in Ayurveda

The main objective of health science is to provide better health to every mankind and a good healthcare system is a cornerstone of sustainable society. It is said that the alleviation of sufferings is the main aim of any medical system.²²

Ayurveda, the science of life, has a holistic approach towards all the miseries of man. Ayurveda is not only mentioned for the treatment of diseases but also for the maintenance and promotion of health.²³

Ayurveda defines health as a balanced state of all the physical elements such as *doṣha*, *dhatu*, *mala* and *agni* along with congenial mind, senses and soul²⁴. Many health promotion strategies are mentioned in Ayurveda which includes *panchakarma* (bio-purification methods), *dinacharya* (daily regimen), *ritucharya* (seasonal regimen), *sadvritta* (code of conduct), *achara rasayana* (rejuvenation techniques), *pathya apathya* (do's and don'ts) etc. Due to its holistic and individualistic approach Ayurveda can put forth a lot of contributions to palliative care practices.

Conceptual basis of Palliative Care in Ayurveda

Concept of palliative care is also mentioned in Ayurveda classics but the references are scattered. The concept of *yapya* and *asadhya vyadhi* mentioned in Ayurveda are relevant in the context of palliative care. In the first chapter of Ashtanga Hridaya, Vagbhata describes the 4 types of diseases as *sukhasadhya* (easily curable), *krcchrasadhya* (curable with effort), *yapya* (manageable) and *anupakrama* or *pratyakhya* (irremediable)²⁵. Here *yapya* means the diseases which can be manageable or maintainable. Basically these diseases are *asadhya* (incurable) but still the patient can be managed through practising wholesome dietetics and lifestyle regimens. The diseases which cannot be cured or out of reach of treatment are called *anupakrama*. The diseases which cannot be cured by any treatment or medicines in which the sense organs have lost their power of perceiving and have gone weak, the patient has become weak and debilitated and in which *arista lakshana* (signs of end-life

mentioned in Ayurveda) have manifested are considered to be *anupakrama*.²⁶ These two types of disease i.e. the *yapya* and *anupakrama* diseases belong to the category of palliative care where the treatment goal is not the complete cure but relies on the relief from distressing symptoms.

Agni is important factor which is responsible for the *bala* (strength) and *ojus* of the body.²⁷ Maintaining the *agni* (digestive capacity), promoting proper sleep, promoting normal *vega pravriti*, providing proper *vyayama* (exercise), providing adequate nutrition along with pain management are some of the aims of ayurvedic palliative care. When the all the diseases become chronic, the predominating *doṣha* will be *vata*, *agni* also hampers specifically *jatharagni* that will reduce the intake of food which will again lead to *vata kopa* and *dhatukshaya*. It is important factor that determines the health status of the patient. So diet which improves the *agni* (digestive power) is a must in palliative care. In the context while explaining *snehapana* (method of internal oleation of body), Vagbhata says while treating the patients who are extremely fatigued due to diseases, for them the medicines which promotes *agni* (the digestive fire) and which promote the *deha pusti* (nourishment of body) should be given²⁸. Hence special care is needed for such patients with food which is easy to digest, yet nutritious and satisfying.

The role of *samsarjana krama* and modified *samsarjana* according to the diseases has a great value in this context.²⁹ Appropriate nutritional intervention in terminally ill patients can have a significant impact on their quality of life, thus a customised diet plan aimed at providing nutrition and disease control should be a goal of end-of-life care treatment. Various *ahara kalpana* and *pathya kalpana* in Ayurveda may play a vital part in the dietary aspect of palliative care by providing nutrition, food satisfaction, and health advantages, as well as improving quality of life in terminally ill patients.³⁰ Gradual nourishment of body through *sali* (a variety of paddy which is red in color), *sastika* (a variety of paddy), *godhuma* (*Triticum aestivum*), *mudga* (*Vigna radiata*), *mamsa* and *ghrita* and with the food preparations such as *yavagu* (gruel) and *manda* (supernatant water in which rice is boiled) where the main ingredient is rice, *yusha* (the main ingredient is pulse), *mamsarasa* (meat soup), *raga-shadava* (the main ingredients are sugar, rock salt, and juice of pomegranate), *takra kalpana* (butter milk), and *mantha kalpana* (which contains fruits, sugar, meat soup, cow milk, and cow ghee) are mentioned in the classics.³¹

Ayurveda considers proper functioning of natural urges (*vega*) as an important factor for normal health status. In patients with life threatening diseases, there may be abnormal functioning of these natural urges, viz. urine & bowel incontinence, constipation, disturbed sleep, etc. These can be managed with appropriate Ayurvedic interventions³².

In patients with chronic illness, lack of mobility and defect in early ambulation is another major problem that leads to muscle wasting, loss of strength, pressure sores etc. Ayurveda advises *vyayama* (physical exercises) as one of the best strength promoters.³³ Moderate amount of exercise is also a part of ayurvedic palliative care.

The *shodhana chikitsa* in Ayurveda aims at elimination of dosha in the body. The Acharya advocates periodic *shodhana* in some chronic diseases. For example, in *kushta chikitsa*, if there is *bahu dosha* (excessive aggravation of doshas), Acharya Vagbhata advises repeated *shodana* to save the life of patient.³⁴ So periodic elimination therapies can be incorporated to the palliative care practices.

The benefits of *rasayana chikitsa* (rejuvenate therapy) also can be utilized in management of chronically ill patients. There are two types of *rasayana* mentioned in our classics; *kutipraveshika rasayana* and *vataatapika rasayana*. The *vataatapika rasayanas* can be administered to a patient without any restrictions. So many *rasayanas* such *pip-pali rasayana*, *shilajatu rasayana*, *triphala rasayana*, *bhallathaka rasayana* etc are described in the classics.³⁵ These can be administered according to the condition of the patient.

Panchakarma and allied procedures that can be adopted for palliative care services

Panchakarma therapy serves its role in promotive, preventive, curative and rehabilitative aspects.³⁶ Even though certain procedures in classical *Panchakarma* like *vamana* (emesis) and *virechana* (purgation) which are of drastic in nature are generally contraindicated in *vyadhikshina* or for those who are in end stage life care still there lies the possibility of choosing the treatments which are safe to introduce to the vulnerable category are discussed below.

Panchakarma procedures

Vasti

Vasti is regarded as the prime treatment modality in *Panchakarma* which has got not only curative action but also preventive and promotive actions. This is the *Panchakarma* procedure that can be done from birth to death. It implies that practically there is no age bar in administration. Nutri-

tive effect of *ksheera vasti*, *baladi yapana vasti*³⁷, *brimhana vasti* can be utilised for palliative care services. *Churna Vasti* with *guduchyadi kashaya* and *vaishwanara churna* in combination is found to be effective in reducing the elevated levels of urea and creatinine in CKD patients³⁸.

Matra vasti

It is a variant of *sneha vasti* (oil enema with *sahacharadi mezhupakam*, *dhanvantara mezhupakam*, etc.) in which the dosage is comparatively less (60 to 90 ml per procedure). Can be utilised for constipation, low back pain, osteoarthritis³⁹ etc.

Pratimarsha nasya

Instillation of medicated oils to the nose in minimal doses is *pratimarsha nasya*. *Pratimarsha nasya* with *anu taila* enhance proper respiratory function. It also helps in improving sleep. *Pratimarsha nasya* with *dhanwantharam avarti taila* helps to relieve neck stiffness, numbness over the upper limbs etc.

Naspanam

It is a modified *nasya* procedure in which administration of medicated *kashaya* (for example, *masabaladi kwatha*, *dashamula kwatha*, etc.) in larger doses. It can be done in cases of *aridita*, *pakshaghata*, *viswachi*, *apabahuka*, *man-yastambha*.

Bahyakriyas on Shiras

Talam

It is the application of medicines in paste form over the bregma region for a stipulated time. The procedure has a wide range of applications. In palliative care it can be utilised for sleeplessness, headache etc.

The selection of medium and medicines will be based on the dosha predominance. *Talam* with *ksheerabala taila* and *kachuradi choorna* can be used for sleeplessness. *Talam* with *rasnadi churna* and *jambeera svarasa* is recommended in *shirashula*, nasal congestion, etc. For neck pain and neck stiffness, *talam* with *nimbamritadi eranda* and *kachuradi churna* can be utilised. Thala with *panchagandha churna* can be used for the depression and insomnia of terminally ill patients.

Shiropichu

Keeping a sterile cotton pad dipped in herbal oil over the scalp for a prescribed time. It is beneficial in head ache, vertigo, burning sensation of head, improves memory, relieves the sleep disturbances. Some of the oils that can be used for *shiropichu* are *ksheerabala tailam*, *balagulucyadi tailam*, *dhanwantharam tailam*, etc. *Shiropichu* with *dhanwantha-*

ram tailam is found to be effective in improving the head holding and standing motor milestone in patients with cerebral palsy.⁴⁰

Shirolepa

Application of medicines in paste form (for example, *panchagandha churna*, *amalaki churna*, etc.) to the entire scalp for a stipulated time. It can be utilised for sleeplessness, psychiatric disorders, headache, etc.

Shirodhara

Pouring of medicated oil, *kashayas*, *kseera kashayas* over head in a continuous stream for a prescribed time. *Shirodhara* with is beneficial in improving the sleep, reducing stress, managing hypertension, improving memory, and controlling neurological disorders in terminally ill patients. A study has found that *shirodhara* with *tila taila* (sesame oil) has significant improvement in serum biomarkers of stress.⁴¹

Shiroabhyanga

Shiroabhyanga means massaging the head with medicated oils. The procedure is very beneficial for sleeplessness.⁴² *Siroabhyanga* with *ksheerabala taila*, *arukaladi taila*, *chandanadi taila* improves sleep.

Shirovasti

It is the procedure in which a certain amount of medicated oil is allowed to remain over head for a prescribed time. The *shirovasti* is very helpful for managing neurological condition such as paraplegia, quadriplegia, cerebellar disorders, facial palsy, helpful in reducing pain, stress, anxiety disorders and helps to attain sound sleep. *Shirovasti* can be done with *ksheerabala taila*, *dhanwantaram taila*, *mahamasha taila*, *brahmi taila*, *brahmi ghrita*^{43,44} etc.

Bahyakriyas on body

Ruksha (roughening) procedures

Udvardana

Massaging the affected part with medicated powder in *pratiloma* direction is called *udvardana*. Generally *udvardana* is beneficial in improving blood circulation. It is helpful in reducing the numbness, paraesthesia associated with diabetic neuropathy when done with *churna* like *triphala*, *eladi*, *kolakulathadi* etc.

Snigdha (unctuous) procedures

Abhyanga, padabhyanga

Abhyanga is the procedure of massaging the body with medicated oils. It can be done either whole body or locally. It has got both physical and psychological effects. *Abhyanga*

increases the blood circulation, promotes the lymphatic drainage and also has pain relieving effect followed by *swedana* (fomentation). It is beneficial in reducing the pain, stiffness and rigidity of joints.⁴⁵ It is also reported to have the effect of relieving stress⁴⁶.

Padabhyanga is massaging the foot with medicated oils. This procedure can be utilised for the burning sensation, numbness and pain associated with various neuropathies. *Padabhyanga* with *ksheerabala taila*, *balagulucyadi taila* reduces symptomatic relief for the burning sensation, numbness in diabetic neuropathy. It also promotes good sleep and vision^{47,48}.

Samvahana

Samvahana is variety of superficial massage technique with or without oil application⁴⁹. It has pain relieving property when oils like *karpuradi taila*, *kottamchukadi taila*, *murivenna*, etc are used. *Taila* such as *ksheerabala taila*, *arukaladi taila*, *chandanadi taila* etc induces sleep.

Pichu

Retaining the cotton soaked in medicated oil over the affected region i.e. in neck region (*greeva pichu*), low back region (*kati pichu*), knee (*janu pichu*), etc is called *pichu*. All these can be utilised for the management of pain and stiffness. Most commonly used *taila* are *karpashastadi taila*, *ketakimuladi taila*, *dhanvantaram taila*, *sahacharadi taila*, etc.

Sweda procedures

a) Upanaha

The prescribed medicines are prepared to paste form and applied to the affected part and bandaged. The basic ingredients for preparing *upanaha* includes *churna*, *taila*, *amla dravya* and *saindhava*. It reduces the local inflammation and relieves the pain.⁵⁰

Upahana with *kolakulathadi churna*, *jatamayadi churna* can be utilized for the pain management in arthritic and degenerative joint disorders. Similarly, it has been found that *upanaha sweda* using *salavana* combination is effective in reducing spasticity as well as improving muscle power in children with cerebral palsy.⁵¹

b) Arkapatra sweda

Type of local *sweda* procedure done with the leaves of *arkapatra* dipped in heated ghee added with *saindava*. It reduces the local swelling and inflammation in arthritic conditions.⁵²

Local dhara

Pouring of medicated oil/*kashaya/ksheera Kashaya/dhanyamla*⁵³, depending upon the dosha predominance, in a continuous stream over the painful joints.

In case of acute inflammatory joint diseases, *dhara* with *dashamula kashaya* or *kupilu kashaya* is helpful in reducing the inflammation and pain, *dhara* with *dhanyamla dhara* helps in reducing the progression of diabetic sensory neuropathy⁵⁴.

Valuka sweda

Roasted sand is made into *potali* and applied to the affected region having pain.⁵⁵ Local application of *valuka sweda* is useful to overcome pain, stiffness, swelling, tenderness and improving walking ability.

Different ruksha pinda sweda

Churna pinda sweda, kulatha kizhi, navadhanya kizhi can be utilised according to the condition of the patient.

Other Ayurveda-based interventions

Dhumpana

It is the inhalation of medicated smoke. In comatose patients, the *nasya* with *trikatu churna* and *dhumpana* with *sanjya sthapana* drugs can be given.⁵⁶

Karnapura

Here, warm medicated oil (example, *dipika taila, kaṭu taila, bilva taila*) is gently and slowly poured into the ears. *Karnapura* can be used for both preventive and curative purpose. This procedure is beneficial in tinnitus, presbycusis⁵⁷, otomycosis⁵⁸, and stiffness of temporomandibular joint.

Guda varti

These are rectal suppositories (for example, *phala varti*, etc.) meant for insertion into anus which helps in *apana vayu anulomana* there by easy expulsion of faeces.

Lepas and kshalana for ulcer management

Management of diabetic wound by applying paste of *Katupila (Securinega leucopyrus)*⁵⁹, cleaning with *triphal* decoction, *apamarga kshara taila*⁶⁰, *jatyadi taila*, application of honey for bedsores in cancer⁶¹, topical application of Neem (*Azadirachta indica*) oil, *murivenna* oil infiltration and *haridra (Curcuma longa)* over non-healing wounds⁶² are some of the Ayurvedic interventions that can be employed as palliative care. Similarly, *dhupana* with *guggulu, tagara, vacha, nimba, triphala-sarja rasa*, etc. can be used to keep wound clean. Also, the usage of yoga to deal with the emotional aspects of chronic pain, reduce anxiety and depression, and improve overall quality of life has been increasingly growing over the years⁶³.

Discussion

The holistic approach of the Ayurveda has the great potential to stand with modern palliative care services or it can do more. Integration of the both system would be beneficial to the society. Lack of health workers trained in ayurvedic therapeutic measures and lack of well-equipped ayurvedic palliative care centres has been a major hurdle for the implementation of Ayurveda in palliative care.

Conclusion

The suitable palliative care interventions may provide considerable impact in improving quality of life of patients and hence a modified perspective of care integrating Ayurveda with the conventional palliative care shall be a goal in end stage life care. Panchakarma and allied procedures have significant effect on the symptom management in palliative care and thereby improving the quality of life. An integrated approach of Ayurveda along with conventional management can provide better outcomes for the complex needs of seriously ill patients and their families.

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