



AYURVEDA AS AN ADJUVANT THERAPY IN ORAL CANCER

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Abstract

Oral cancer includes cancers of mouth and pharynx which is the sixth most common cancer in the world. Clinical experience over fifty years has clearly shown that surgery alone can provide cure to a proportion of patients. At the time of presentation or at the time of surgery chances of micro metastases is high. In order to destroy the occult micro metastases, adjuvant therapies are used. The present adjuvant therapy such as chemo and radiotherapy, although a lifesaving modality for cancer is also a ruthless medical intervention compelling the patients to withdraw the treatment before its completion. Common complication of adjuvant therapy includes oral mucositis, alopecia, nausea, vomiting, anemia, diarrhoea, xerostomia etc. Ayurvedic drug have over a period of time proven as potent adjuvant therapy by minimizing side effect and enhancing the quality of life. Ayurvedic formulations including single drugs like Haridra, *Ardhraka* & combination drugs like *Rasayana Avaleha*, *Ashwagandadhi Ghrita* etc. have proven to be effective medicines when given in between consecutive chemo/radiation therapies. Classical approach of *Panchakarma*, *Rasayana*, *Satwavajaya Chikitsa* helps in relieving signs and symptoms as well as side effect of adjuvant therapies. Thus, ayurvedic interventions with combined therapies reduce cost of treatment with decrease in relapse of disease & increase quality of life of patient.

Key words - Oral cancer, Adjuvant therapy, complications, Ayurveda, quality of life.

Introduction

Cancer¹ is the most dreadful diseases of 20th century and spreading further continuance and increasing incidence in the 21st century. It is the second only to coronary artery diseases as being the most common cause of death in the whole world. Oral cancer includes cancers of mouth and pharynx (the back of the throat). Oral and pharyngeal cancer, together is the sixth most common cancer in the world. Approximately 53,000 people are diagnosed with oral cancer each year. On average ,66 percent of those with the disease will survive 5 years or more². Compared to western countries, India has the highest incidence of oral cancer. It is a preventable disease, where the tobacco and smoking is considered major risk factors present in 90 % of cases. Chemotherapy, radiotherapy and surgery being the main line of treatments for cancer in modern science have its limit³. Chemotherapy drugs and radiotherapy are highly toxic and both damage adjacent healthy cells. Most of the patients suffer from adverse effects of chemotherapy and radiation

therapy. These side effect may be acute, intermediate or late. Some of the side effects are fatigue, nausea, vomiting, insomnia, headache, fatigue and late complications like pharyngitis, dysphagia, infertility and cognitive deficits. There is also a possibility of development of secondary cancer due to chemotherapy. These arrays of side effects have a devastating effect on the quality of life of cancer survivors.

Oral cancer

Oral cancer is a serious growing problem in many parts of the globe. Oral and pharyngeal cancer, grouped together is the sixth most common cancer in the world. In high-risk countries such as Sri Lanka, India, Pakistan and Bangladesh, oral cancer is the most common in men and may contribute up to 61% of all new cases of cancer. oral cancers are squamous cell carcinoma (osccs) in more than 90% of cases. Other tumours of the oral cavity include those of salivary minor glands, melanomas and lymphomas⁴.

Common causes and risk factors of oral cancer⁵

The etiology of oral cancer is multifactorial. The most important etiological factors are tobacco, excess consumption of alcohol and betel quid usage, these factors act separately or synergistically. Attributable risk of oral cancer due to tobacco and alcohol is estimated to be more than 80%. All forms of tobacco are carcinogenic and evidence for smokeless tobacco causing oral and pharyngeal cancer have recently been evaluated and confirmed

Based on available global evidence the risk factors known can be grouped as established, strongly suggestive, possible and speculative factors.

Table 1. Risk factors for oral cancer and precancer

Established	Strongly suggestive	Possible	Speculative
• Reverse Smoking -hard palate • Chewing tobacco-tongue • Snuff dipping • Alcohol misuse • Betel quid-floor of tongue • Marijuana consumption - oropharynx • Syphilis	• Sunlight – UVB radiation -lip	• Viruses (HPV)- tonsil and oropharynx • Infection -HIV • Immune deficiency • Ill fitted dentition • Vitamin deficiency (Riboflavin, vitamin A) • Poor oral hygiene.	• Mouthwashes • Mate drinking • Periodontal diseases • Familial

Common symptoms of oral cancer⁶

The first detectable clinical changes seen in oral cancer are potentially occurrence of leukoplakia and erythroplasia, which are the most common ones. In general, if a lesion in the oral mucosa does not heal within three weeks, a malignant tumour or some other serious condition should be excluded, indicating a biopsy and its histopathological analysis. In the early period the tumour could be totally asymptomatic but evident as a visible aberration of the normal texture and surface of the mucosal lining.

Table No. 2. Most common clinical signs and symptoms of cancer of the oral mucosa.

- 1.Persistant mouth sores and /or pain.
- 2.Localised modifications of appearance of the oral mucosa.
- 3.Localised modifications of consistence of the oral mucosa.
- 4.Persistent white or red or mixed white and red patch of the oral mucosa.
- 5.Raised patch or plaque in the oral mucosa
- 6.Persistent lump or growth in the oral mucosa.
- 7.Localised bleeding area in the oral mucosa.

Tumours of oral cavity**Table No.3 showing tumours of oral cavity**

Benign		Malignant
Solid	Cystic	Carcinoma
Papilloma Pleomorphic adenoma Hemangioma Lymphangioma Granular cell tumour Ameloblastoma Torus (congenital) • Torus palatinus • Torus mandibularis Inflammatory • Pyogenic granuloma • Irritation fibroma	Mucocele Ranula • Simple • Plunging Dermoid cysts(congenital) • Sublingual • Submental	• Squamous cell carcinoma • Non squamous cell carcinoma - Minor salivary gland tumour - Melanoma - Lymphoma • Sarcoma - Kaposi's sarcoma

Some of the premalignant lesions of oral cavity**Table No.4 showing premalignant lesions of oral cavity.**

Lesions	
Lichen planus	• Associated with lip cancer . • Risk of malignant changes .
Syphilis	• Syphilitic interstitial glossitis-more vulnerable to carcinogenic irritants.
Plummer-Vinson syndrome	• Oral mucosa becomes thin, pale and atrophic • Common in women • Cancer of oral cavity and post cricoid region.
Dyskeratosis congenita	• Oral leukoplakia with thickened, fissured.
Leukoplakia	• Presents as white patches • Common sites -buccal mucosa , oral commissures, floor of mouth and tongue.

	• Induration indicates malignant changes and immediate biopsy should be taken.
Erythroplakia	• Bright red velvety patches. • Common sites-lower alveolar mucosa, gingivobuccal sulcus • Shows severe dysplasia, carcinoma in-situ or invasive carcinoma • Malignant potential 17 times higher than leukoplakia.
Submucous fibrosis	• Insidious painless oral cavity disease Juxta epithelial deposition of fibrous tissue extends to pharynx. • Fibrosis and scarring which further leads to restricted mobility of soft palate, tongue and jaw.

Common sites of oral cancer

Oral cancer includes cancers of mouth and pharynx (the back of the throat). The most common sites for the presentation of oral cancer are,

- Mucosal lip
- Buccal mucosa
- Anterior two-third of tongue (oral tongue)
- Lower alveolar ridge
- Upper alveolar ridge
- Floor of mouth
- Retromolar trigone.

Among these sites buccal mucosa (41%) and tongue (29%) is the most common site for oral cancer. They arise primarily from epithelium cells, and almost 90% are oral squamous cell carcinoma (OSCC) in origin.

TNM classification of oral cancer⁷

The TNM staging system (tumour-lymph node-metastasis) is based on the best estimate of the extent of disease before treatment. Assessment of the primary tumour is based on inspection and palpation, where the proper nodal drainage areas are examined by careful palpation and also the imaging studies can help in metastases. Information obtained from clinical examination and imaging are used to assign a clinical stage (c TNM), which is then used to stratify patients (clinical stage) for selection of treatment.

TNM classification system has been outlined as having the following 6 objectives⁸

1. Aid in treatment planning.
2. Prognosis.
3. Aid in the assessment of treatment results.
4. Facilitate the exchange of information between institution.
5. Support cancer control activities.
6. Contributes to continuing investigation of human malignancies.

Table No.5 showing TNM classification of oral cancer.

Primary tumour (T)			
T _x cannot be assessed.			
T ₀ No evidence of primary tumour.			
T _{is} carcinoma in situ (CIS)			
T ₁ Tumour 2cm or less in greatest dimension.			
T ₂ Tumour more than 2 cm but not more than 4cm in greatest dimension.			
T ₃ Tumour more than 4cm in greatest dimension.			
T4a Moderately advanced local disease; Lip: Tumour invades through cortical bone, inferior alveolar nerve, floor of mouth, or skin (Chin or nose) Oral cavity: Tumour invades through cortical bone, into deep/extrinsic muscle of tongue (genioglossus, hypoglossus, palatoglossus and styloglossus), maxillary sinus, or skin of face.			
T4b Very advanced local disease. Lip and oral Cavity: Tumour invades masticator space, pterygoid plates, or skull base; or encases internal carotid artery.			
Regional lymph nodes(N)			
NX cannot be assessed			
N0 No regional lymph node metastasis			
N1	single	ipsilateral	equal to or <3cm
N2a	single	ipsilateral	3 to 6 cm
N2b	multiple	ipsilateral	none >6cm
N2c	bilateral or contralateral	ipsilateral	none >6cm
N3	bilateral and contralateral	ipsilateral	none>6 cm
Distant metastasis(M)			
Mx distant metastasis cannot be assessed			
Mo No distant metastasis			
Clinical stages (T+N+M)			
0	Tis	N0	M0
I	T1	N0	M0
II	T2	N0	M0
III	T3(enough alone) T2 or T1	N1	M0
IV A	T4a	N0 or N1	M0
	T1 ,T2 or T3	N2	M0
IV B	Any T	N3	M

Early diagnosis⁹

Oral cancer can be considered as a largely preventable disease. However, its occurrence in patients lot belonging to risk categories is still possible. Oral cancer has poor prognosis, with overall 5-year survival rate as low as 40%, although, if diagnosed in the early stages (1 and 2), survival rates can exceed 80%, up to 50% of oral cancers are diagnosed in the advanced stage (stage 3 and 4), as most patients are not symptomatic in the early stages and do not seek medical help until they show clear symptoms such as pain, bleeding, or a mass in the mouth or neck if lymphatic spread is present. Given the high mortality rate, early detection of oral malignancy and anticipation of diagnosis results in better prognosis and survival rates and less morbidity from treatment. In general, if a lesion in the oral mucosa does not heal within three weeks, a malignant tumour or some other serious condition should be excluded, indicating a biopsy and its histopathological analysis. . The most common reasons for this are the initial misdiagnosis and ignorance of the patient which evidently decreases the chances of survival, despite therapeutic strategies.

- Self-visual screening
- Regular dental checkup
- Inspection and palpation of enlarged lymph nodes.
- Biopsy- remains the gold standard

Other testing methods-

- Toluidine blue staining
- Light-based detection technique
- Salivary biomarkers assessed with point of care device.

Adjuvant therapy

Clinical experience over fifty years has clearly shown that surgery alone can provide cure to a proportion of patients. At the time of presentation or at the time of surgery chances of micro metastases is high. In order to destroy the occult micro metastases, adjuvant therapies are used.

Adjuvant therapy is additional anti-neoplastic treatment which is used in some patients with tumours that are thought to have completely removed by surgical excision. A multi-disciplinary approach in which coordinated efforts of dental practitioners, chemotherapy oncologist, surgeon, nutritionist and radiation oncologists come into action.

Common adjuvant therapy used in oral cancer

Surgery and radiotherapy are commonly used for the treatment of oral cancer at early stages. Preference of treatment method depends on the tumour location, patient age, cosmetic and functional outcomes, associated illnesses, and the availability of expertise.

Table No.6 showing stages and Adjuvant therapy given.

<i>Stage</i>	<i>Adjuvant therapy</i>
Early-stage	Surgery
Stage 3 and 4	Surgery, radiotherapy and chemotherapy.

Common complications of adjuvant therapy¹⁰

Chemotherapy drugs and radiotherapy are highly toxic and both damage adjacent healthy cells. Most of the patients suffer from adverse effects of chemotherapy and radiation therapy. Adverse effect of these therapies and drug resistance are the two important obstacles in the better outcome of treatment and quality of life of the patient respectively. These side effect maybe acute (occurring within few weeks after therapy), intermediate or late (occurring months or years after the therapy).

Table No.7 showing Adjuvant therapy and its complication.

Adjuvant therapy	Complications	Late complication
Chemotherapy	Nausea Vomiting Diahorrea Mucositis (common) Alopecia Constipation	Pharyngitis, oesophagitis, Laryngitis, persistent dysphagia, fatigue, hepatotoxicity, Infertility and cognitive deficits
Radiotherapy	Systemic effects like; fatigue, Anorexia nausea vomiting alteration in taste sleep disturbance headache anemia dry skin constipation	Possibility of development of secondary cancer due to chemo-radiotherapy.

Ayurveda – As an adjuvant therapy

Cancer is the most dreadful disease affecting mankind. The available treatments such as chemotherapy and radiotherapy have cytotoxic effects, which are hazardous to the normal cells of the patient, causing many unnecessary effects. This further leads to complications of the therapy, impaired health and deterioration of quality of life. Due to the failure of most of the radio-protectors and chemo-protectors in controlling the side effects of conventional cancer therapy the complementary and alternative medicine have attracted the view of researchers and medical practioners recently. Many Ayurvedic drugs have significantly proven their anticancerous activities e.g., *Tinospora cordifolia*, *Semicarpus anacardium*, *Piper longum*, *Andrographis paniculata* etc. when these drugs in single or combination drugs and also when used with chemotherapeutics it not only reduces the side effect but also stimulate the immune response of the body.¹¹

Line of treatment of oral cancer in ayurveda

Nidana parivarjana

At least three-quarters of oral cancers could be prevented by the elimination of tobacco smoking and a reduction in alcohol consumption. The removal of these two risk factors also reduces the risk of second tumors in existing oral cancer patients. Smoking cessation contributes to reducing the risk of oral cancers, with a reduction in risk within 5 years. The risk for developing oral cancer is 3 times higher in smokers compared with nonsmokers. Besides, the risk for oral cancer is 35% lower in people who quit smoking four year ago than those who continue smoking, and not higher in persons who with no smoking antecedents for over 20 years when compared with people who have never smoked.¹²

Shamana Chikitsa

Traditional medical methods have played a crucial part in addressing the world's health care requirements. Ashes or Bhasma of gold, copper, mercury, lead, zinc, iron and other minerals and metals are used in the formulation of ayurvedic medicines and treatments. They act as catalysts and target specific. Many Ayurvedic drugs and herb have scientifically proven for their anticancerous activities.¹³

Some Anti-cancer drugs and herbs¹⁴

1. *Curcuma longa*
2. *Ocimum sanctum*
3. *Tinospora cordifolia*
4. *Withania somnifera*
5. *Emblica officinalis*
6. *Zingiber officinale*
7. *Moringa oleifera*
8. *Alstonia scholaris*
9. *Myristica fragrans*
10. *Bauhinia variegata*
11. *Allium sativum*
12. Anticancer activity of cow urine

Local measures¹⁵

The local treatments that are most frequently utilized in *Mukharogas* are *Pratisarana*, *Kavala* and *Gandusha*. Local therapy aims to stop the fibrosis. *Kavala* method also uses mouth movements as a physiotherapeutic approach to reduce stiffness.

- *Mukhadhavana* -Vagbhata has discussed *Mukhadhavana* which can be performed with *Triphala, Patha, Mrudvika* and *Jatiphala Kashaya* with *Madhu*.
Panchapallava Kashaya.
- *Charwana* - *Yogaratanakara* has regularly explained *Krishnajiraka*, *Kushta*, *Indrayava* for *Charwana* purpose
- *Pratisarana* -By applying fresh juice of *Daruharidra* mixed with honey and *Gairika* will get cure for *Mukharoga*, *Mukhapaka* and *Rakthadosha*.
- *Kashayapana* -*Saptachhada Kashayapana*.
- *Kavalagraha*- *Dugdha*, *Ekshurasa*, *Gomutra*, *Dadhimastu*, *Kanji*, *Taila* and *Ghrita* has been elucidated by *Acharya Susruta*.
Draksha -*Guluchyadi Kavala*(in radiotherapy induced oral mucositis in non -metastatic squamous cell carcinoma of head and neck)

Abhyantara Prayoga

- *Rasayana choorna*- combination of *Amalaka*, *Guduchi* and *Gokshura*.
- *Varunadi ghritham*¹⁶
- Noni plus tablet
- *Yashtimadhu ghritham*.¹⁷
- *Amritha ghritha agada* (*Vishahara*) as adjuvant therapy
- *Guduchi and Yashtimadhu* as chemo preventive agent in cancer treatment.
- *Ginger in chemotherapy induced nausea*.¹⁸
- *Ashwagandadhi ghritham*

Shodana karma²

Detoxification of body act on cellular level, it's helpful for eliminating aggravated dosha. detoxification of body act on cellular level, it helpful for eliminating aggravated doshas. Purifying therapies used in panchakarma to enhance metabolic processes. it can completely break down malignant tumour. The tumour is slowly absorbed by the body without the use of a surgical procedure and expelled out by the lymphatic system. Ayurvedic treatment is used to cure tumour, if the tumour is internal, *Ayurveda* is recommended for conservative management for several months and then go for surgical procedure

Table No.8 showing side effect of adjuvant therapy and its ayurvedic remedies¹⁹

sl.no	Side effects of chemo-radiotherapy	Ayurvedic remedy	
		Classical	Research based
1.	Mucositis	<i>Khadiradhi Vati</i> for chewing	Oral application of <i>Yashtimadhu</i> powder with honey.
2.	Nausea and vomiting	Powder of <i>Harithaki</i> with honey or <i>Khandakushmadavaleha</i> <i>Eladi choorna</i>	Gut -Gard a extract from the ayurvedic herb <i>Yashtimadhu</i> (<i>glycrrhiza glabra</i>). Ginger supplementation.
3.	Anaemia	<i>Snehana</i> , <i>Virechana</i> , oral intake of cow's urine with milk or cow's urine with decoction of <i>Triphala</i> for 7 days.	<i>Dhatriavaleha</i>
4.	Diarrhoea	<i>Pippali choorna</i> with honey <i>Takra</i> with <i>Chitraka choorna</i> or <i>Pippalyadi yoga</i> <i>Dadimastaka choorna</i>	Extract from herb <i>Brahmi</i> and <i>Jatiphala</i> .
5.	Constipation	<i>Triphala</i> with warm water and ghee (evidence based) Constipation caused by <i>Vata</i> and <i>Pitta</i> - <i>Erandataila</i> with decoction of <i>Triphala</i> or milk or meat soup.	Isab husk, senna extract and <i>Triphala</i> .
6.	Pharyngitis	<i>Khadiradhi Vati</i> for chewing	Spray of five aromatic plant oil.

7.	Sleep problem	<i>Abhyanga, Snana, music</i>	Methanolic extract of <i>Mundi (Spharanthus indicus)</i> has sedative effect. Dietary supplement of <i>Shweta Musli</i> and <i>Atmagupta</i>
8.	Hepatotoxicity	<i>Panchakola ghritha</i> <i>Rohitaka ghritha</i>	<i>Punarnavashtaka Kwatha</i> <i>Kumarysavam syurp.</i>
9.	Male infertility	<i>Gokshuradi modaka</i>	<i>Mucuna pruriens</i>
10.	Female infertility	<i>Brhathshatavari ghritha</i>	<i>Ashokarishta</i>
11.	Fatigue	<i>Ashwagandha, Shatavari</i>	<i>Ashwagandha ghritha</i>
12.	Skin changes	<i>Massage with Bala taila</i>	
13.	Cognitive deficit	<i>Kalyanaka ghritha</i> <i>Chyavanaprasha</i>	<i>Chyavanaprasha</i> <i>Ashwagandha</i>

Yoga as a holistic approach for stress management in oral cancer patients²¹

Terminally ill patients of oral cancer face both the adverse effects of treatment s and recurrence of diseases which makes oral cancer as a complex course of illness that requires palliative care. Palliative care. Yoga can be influencing remission from cancer for a long period. Also, reversal in epigenetic alterations can be achieved by practicing yoga exercises. It has been thought that the practice of yoga *Asanas*, Meditation and *Pranayama* can decrease carcinogenesis. A healthy immune status is requisite for anti-cancer activity within the human body. Stress encourages cancer development and growth by reducing a person's immunity. Various asanas (Yoga postures) have been shown to improve periodontal along with gingival indices due to an increase in salivary human beta-defensin-2 concentration which is an antimicrobial peptide. Yogic breathing is associated with a decrease in blood pressure, variation in heart rate, reduction in the frequency of breathing and improvement in cognitive activities. Significant reduction in the stress levels have been observed alongside a decrease in symptoms.

A study was conducted to assess the impact of yoga on oral cancer and management of stress. Study included a questionnaire -based survey to assess the quality of life in oral cancer patients²²

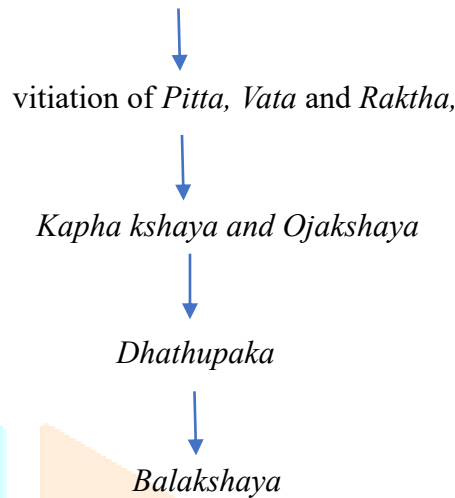
A Prospective questionnaire -based study that included 200 subjects diagnosed with oral squamous carcinoma is taken.	
Results and observation	On applying unpaired t test, it was found that before initiating the practice of yoga, mean stress score was 48 ± 0.99 . After one month of yoga practice, it was found that mean stress score decreased to 37 ± 5.2 . An extremely significant p value of less than 0.001 was obtained denoting the positive effect of yoga on stress levels in oral cancer patients.

In this study, it was demonstrated that the alternative therapy like the practice of yoga is effective in reducing stress in the subjects with oral cancer. Practicing yoga enhances the coping ability of patients. These measures change the hopeless and helpless attitude to the active fighting spirit. Yoga reduces the stress associated with the diagnosis as well as treatment of cancer. It helps in decreasing the inflammatory response and increase the immunity that helps to achieve the good oral health. Scientific evidence support the belief that yoga benefits physical and mental health via-down-regulation of the hypothalamic -pituitary adrenal axis and the sympathetic nervous system. Healthy persons at higher genetic risk of cancer may also be drawn to meditation to reduce environmental and life style risk factors to control anxiety and stress.

Rasayana therapy

The treatment modality radiotherapy is a type of *Tejas Mahabhuta Chikitsa*, which can be considered as modified radiation of *Agnikarma* according to *Ayurveda*.

The Ushna, Tikshna and Ruksha Guna of Agni Mahabhuta



Chemotherapeutic agent can be considered as *Visha Dravya* (toxins) as per *Ayurveda*. These agents are *Ushna Veerya, Tikshna Dravya* working as a two-edged sword, and while destroying cancerous cell also destroys the healthy normal fast-growing cells of the gastrointestinal tract, skin, mucous membrane and hair root. *Rasayana* therapy increases the production of new cells and tissue in the body. Helps in repair and building of muscle tissues. It enhances *Ojas* to increase immunity, nourishes cells in the body as well as prevents and treats issues linked to cancer. Exposure to ionizing radiation throws the body's natural equilibrium off, alters *Tridosha* that manifest as radiation sickness. The herbs used in *Rasayana* treatment are antioxidants, anti-inflammatory, radioprotective, chemoprotective, helps in prevention of DNA damage and immunomodulatory.²³

Rasayana yogas²⁴

- Chyavanaprasha
- Brahma Rasayana
- Ashwangandha Rasayana
- Amritaprasham
- Triphala choorna
- Rasayana Avaleha
- Swarna vanga
- Suvarna Bhasma
- Guduchi Satwa
- Pravala Bhasma
- Bhallathaka Rasayana

Satwajaya Chikitsa²⁵

Cancer also has a significant effect on one's mental and emotional well-being. After a diagnosis and throughout therapy, it's natural to experience feeling of anxiety, depression, dread or worry. In this situation, *Satwajaya chikitsa* plays an important role in improving wellbeing, harmonize the body, mind and soul. It can increase vitality, reduce stress, blood pressure, and anxiety also maintains general health.

Daiva Vyapashraya chikitsa ²⁶

Effect of Agnihotra homa along with its ash in managing adverse effect of radiotherapy and chemotherapy in cancer treatment. *Agnihotra homa* is one which heals the environment, body and mind. It is the simplest form of homa performed in many countries all over the world. Although it is an ancient fire ritual it is based on scientific aspects. It is found that sunrays and that of Agnihotra resonate to generate a huge amount of vital energy useful for life processes. Fumes produced reduces the pathogenicity of microorganisms and help to improve the health of living being. Several research studies unravel the benefits of *Agnihotra homa* in terms of lower stress level, increased will power and confidence level. It neutralize the effect of radiation, chemical and is bacteriostatic. By continuing homa, humans become more resistant to diseases due to aura energy created around the proximity of the pyramid.

Discussion

Oral and pharyngeal cancer, together is the sixth most common cancer in the world. The available treatments such as chemotherapy and radiotherapy have cytotoxic effects, which are hazardous to the normal cells of the patient, causing many unnecessary effects. It is important to find oral cancer as early as possible when it can be treated more successfully. Ayurvedic drugs have anti-cancerous activity and cytoprotective action hence can be used as adjuvant therapy in cancerous treatment.

Conclusion

Ayurveda supports internal healing, boost immunity, promotes general health balance and speed up recovery. The key to curing cancer is early detection and improving screening. Classical approach of Panchakarma, Rasayana, *Satwajaya* chikitsa helps in relieving signs and symptoms as well as side effect of adjuvant therapies. It helps to increase the life span of individual and improve the quality of life.

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