



“Therapeutic Potential of *Agad* in Cancer Management: A Comprehensive Review”

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Abstract

Ayurveda, an ancient Indian system of medicine, offers a unique perspective on the treatment of cancer through the use of *visha* (poison) and *agad* (antidotes). This review aims to explore the historical background, theoretical framework, and current evidence regarding the utilization of *visha* and *agad* in cancer therapy within the Ayurvedic paradigm. The concept of *visha* in Ayurveda refers to substances with inherent toxicity, which, when administered in controlled doses under expert guidance, are believed to possess therapeutic properties against cancer. Similarly, *agad* formulations serve as antidotes to counteract the toxic effects of *visha* and restore balance to the body. While Ayurvedic treatments incorporating *visha* and *agad* have been used for centuries, their efficacy and safety in cancer management remain subjects of debate and ongoing research. Limited scientific studies have investigated the anti-cancer potential of specific Ayurvedic formulations containing *visha* ingredients, highlighting the need for further clinical research to validate their effectiveness. Moreover, the integration of Ayurvedic therapies with conventional cancer treatments necessitates a multidisciplinary approach, emphasizing collaboration between Ayurvedic practitioners and oncologists to optimize patient care. This review underscores the importance of evidence-based practice and patient safety in the exploration of Ayurvedic interventions for cancer treatment, while also acknowledging the rich heritage and holistic principles that underpin Ayurvedic medicine. This article is a humble attempt to present the review of various researches that have been undertaken in this context.

Keywords: Ayurveda, *Agad*, *Visha*, cancer, *Dushivisha*

Introduction

The demand for medicinal plant is growing in both developed and developing countries due to growing recognition of natural product. Herbal medicine is an important part of both traditional and modern system of medicines.[1] The universal role of plants in the treatment of disease is exemplified by their employment in all the major systems of medicine irrespective of the underlying philosophical premises. *Agada Tantra* as a branch of Ayurveda focuses on the treatment of poisons and uses of poison for therapeutic purposes. In Ayurveda, toxins are referred to as "*Visha*," as a substance that causes ill effects. *Visha* is categorized into two types; *Sthavar* and *Jangam*, which belongs to plant and animal origin respectively.

The Ayurvedic texts contain a wealth of information about various *Agada Yogas* which are the substances employed to address poisoning cases. Literature mentioned numerous *Agada Yogas* along with their unique properties and indications for treating toxicity. *Agada Yogas* helps to neutralize toxins and restore

balance of the systems. *Agada* serves as an antidote for poisoning, comprises combination of antitoxic medications, along with antioxidant, hepatoprotective and immunomodulator substances, etc. When treating *Sthavara* and *Jangam Visha*, they have opposing effects on each other. Thus, patients afflicted by

Jangama Visha should receive treatment with Sthavara Visha, and vice versa. Both internal and external applications of these treatments are possible, depending on the nature of the poisoning and the patient's condition.

Cancer represents a large group of diseases characterized by the progression of abnormal cells that divide uncontrollably and have the ability to infiltrate and destroy normal body2005 and 84 million people will die in the next 10 years if prompt actions are not taken.⁵ In addition to pain and suffering caused by the disease, cancer places an enormous economic burden on individual families as well as our society. According to WHO, causes of cancer include using tobacco products, irregular and unwholesome diet, obesity and reduced physical activity, unprotected exposure to the sun, and exposure to chemicals. Environmental exposure to carcinogens occurs from home, workplace, unknowingly through consumer products, medical treatments, and routine choices.⁶ International Agency for Research into Cancer (IARC) has estimated that 3% of all cancers caused due to pollution and chemicals in our environment.⁴

Moreover, the integration of Ayurvedic therapies with conventional cancer treatments necessitates a multidisciplinary approach, emphasizing collaboration between Ayurvedic practitioners and oncologists to optimize patient care. This review underscores the importance of evidence-based practice and patient safety in the exploration of Ayurvedic interventions for cancer treatment, while also acknowledging the rich heritage and holistic principles that underpin Ayurvedic medicine. This article is a humble attempt to present the review of various researches that have been undertaken in this context.

Aim & Objective

1. Collect literary aspect of Cancer and Agad,
2. To analyze Cancer, in light of Dooshivisha and Agad in the Present scenario.

Materials & Methods

The study being a literary review, the sources of data will collected from all Brihat and *Laghu Trayees* also from all Contemporary Textbooks, Relevant Journals and Webs

Conceptual Review on Cancer

Human body is made up of millions of cells becoming tissues, organs, organ systems and functioning as a single unit. All of these cells grow, multiply, and are replaced by younger cells to maintain the health of the body. When a cell becomes abnormal, it leads to uncontrolled growth and is termed as tumor. Tumors are basically divided to two, benign and malignant. Benign tumors are not termed as cancer and are generally not life threatening. Malignant tumors are can invade the surrounding tissues and organs as well as spread to distant sites of the body through blood stream or lymphatic system. This process is termed as metastasis² Carcinogens Substances or reasons for the occurrence of cancer are termed as carcinogens.

When the body comes in contact with the carcinogens, they are processed or metabolized differently. According to this, they are classified to

- 1) Direct acting carcinogens
- 2) Indirect acting genotoxic carcinogens
- 3) Co-carcinogens Direct acting carcinogens are those chemicals which cause cancer on exposure like nitrogen mustard. Indirect acting genotoxic carcinogens are those substances which cause cancer when they are metabolized in the body like benzo (a) pyrene, aflatoxin B1, NNK. and chemicals or lifestyles which act with other chemical to cause cancer are called co- carcinogens and these substances do not cause cancer by themselves like sodium arsanite and cigarette smoking.⁸

Incidences

According to WHO, In 2014, 326,300 women died of cancer in India and of which 21.5% was breast cancer followed by cervical cancer². Over the years, in spite of decreasing trend in cervix cancer, Gynecological cancers have increased in India and are estimated to be around 182,602 by the year 2020 constituting about 30% of the total cancers among women in India. And Cancer of breast is expected to cross the figure of 100,000 by the year 2020³ if actions are not taken. Based on the NCRP data, it is estimated that for the year 2010, there will be about 936,908 new cancer cases in India which will be raised to 1,044,650 by the year 2020. WHO states that cancer is to a large extent avoidable and prevention of cancer offers the greatest public health potential and the most cost-effective long term method of cancer control.³ Reducing exposure to toxins causing cancer is the most effective way of prevention which is not always possible in our day to day life.

Vishaghna drugs work by different mechanism some operate based on their Dravya prabhava, while others function based on their Guna prabhava. Certain drugs may work through a combination of both their nature and Dravya Guna prabhava. These antitoxic herbs, preparations and formulations collectively referred to as Vishaghna Dravya, Agadas and Vishaghna Yogas, which are utilized in the treatment of various diseases and poisonings. This article explores uses of some Vishaghna Yogas. These Vishaghna Yogas possess characteristics such as Raktashodhaka, Tridoshaghna, Hridya and Ojavardhaka effects, thus enhances therapeutic efficacy in combating poisoning.

These Agada Yogas are utilized in the treatment of following conditions;

- Poisoning conditions
- Animal, mineral, plant or food poisoning
- Disorders related to toxins (Visha vikar)
- Toxic swellings (Visha janya shotha)
- Abdominal tumors (Gulma)
- Skin diseases (Charma roga)
- Hemorrhoids (Arsh) and fistulas (Bhagandar)
- Edema (Shotha) & worms (Krimi) Insanity (Unmad).

AGADA YOGA

- *Dushivishari Agada*: Used in cases of Dushivisha poisoning.
- *Maha Agada*: Employed to counteract the rapid effects of toxins (Visha vega).
- *Ajit Agada*: Utilized in cases of both Sthavar and Jangam poisonings.
- *Taksharya Agada*: Used in Takshak snake poisoning.
- *Rishabha Agada*: Effective in treating poisonings caused by snakes and insects.
- *Sanjeevan Agada*: Administered to unconscious individuals affected by poisoning.
- *Vanshtwakadi Agada*: Employed in Lutaadi vish poisonings.
- *Kshara Agada*: Utilized in various types of poisonings, as well as in Arsha.
- *Mahasugandhi Agada*: Effective against all types of poisoning.
- *Kushdaadi Agada*: Used specifically in *Trikantaka* visha.
- *Rajnayaadi Agada*: Administered in cases of Galgolika visha.
- *Kukumadi Agada*: Effective in treating Shatpadi visha
- *Meshshringi Agada*: Used in Mandook visha
- *Dhavaadi Agada*: Employed in Vishambhra visha
- *Shirishadi Agada*: Administered in cases of Ahinduka visha.

- *Gandhahastinamak Agada*: Destroys poison spread in the head region and is used in Jwar, Visuchika, Ajirna, Murcha, Unmad, Nilika, Pilla, Arbuda, Arsh and Kandu, etc.
- *Maha gandha hastinam Agada*: Used in cases of poisoning caused by insects, rodents, snakes, Moola and Kand toxins. It also treats Netra roga such as tumors, Kandu, Timir, Kanch, Abuda, Visham jwar, Visuchika and Pama.
- *Meghanath Agada*: Used specifically in cases of Rajiman snake poisoning.
- *Nakulyaadi Agada*: Employed in Mandala snake poisoning.
- *Himvan Agada*: Effective in treating Mandala snake poisoning, Visarpa, Shwathu, Visphot, Jwar and Daha.
- *Vajra Agada*: Administered in snake poisoning cases.
- *Bilwadya Agada*: Effective against Poisonings caused by snakes, Luta, scorpions, etc.

Discussion

Every day we come in contact with different chemicals knowingly or unknowingly and many of these might be toxic in nature. Effects of them usually depend on toxicity of the chemical, its dose, frequency and duration. The general health, age and lifestyle of the person also have a predominant role in the determination of how these chemical will have the adverse reaction. The damage on cells produced by these substances, may either lead to the death of cell, or its recovery. But in the case of carcinogens, these may alter the DNA in the cell leading to mutation, alteration of genes. These altered genes and some of the mutations can cause cancer. Dooshivisha is a Slow acting Poison which remains in the body and aggravates whenever a favorable condition arises. It produces Agnimandhya and is Apaki. The main cause for Dushana of Vayu, Udaka, Desha and Kala is Adharma i.e. Prajnaparadha. Aggravating factors of Dooshivisha are Dooshita Desha – polluted land In the process of growth, advancement and progression of Agriculture, pesticides have been an integral means as a plant protective agent in advancing food production. Exposure of pesticides both occupationally and environmentally causes a range of human health problems. Best example is Endosulfan, which is an environmental contaminant, it can travel long distances from where it is used. Others include DDT, Organophosphorus compounds etc.

These effects of Dooshivisha depend on the presence of Dooshivisha at different Dhatu level, as a result of which, Dooshivishjanyavikara are becoming more and more common. Cancer is one among them and while diagnosing disorders like cancer, Ayurveda needs to consider Dooshivisha as an etiological factor. This is especially true when there is no obvious cause for many cancers.

In modern science treatment of cancer is still being carried out and the side effects are sometimes worse than the disease itself. And fewer options are available for most of the

- Now a day's people are more prone to various kinds of Visha, including Dooshivisha cases along with rate of recurrence being high.
- It is not mandatory that only direct intake and Garavisha in food as well as in environment. of poisonous material lead to Dooshivisha lakshanas.
- At present scenario polluted air, water, land, the increased exposure to electromagnetic radiations through cellular phones and computers, faulty food habits, stressful life style, unpleasant feelings, continuous usage of any particular medications and suppression of urges can act as cause for Dooshivisha as well as Garavisha. As a result Dooshivisha janya and Garavisha janya vikaras are becoming
- Patients demanding Ayurvedic treatment more and more common. for cancer are increasing as an alternative for the existing system.

Conclusion

In addition to classical description of Dooshivisha and Garavisha, it can be inferred that polluted environment, changing and faulty life style, changing food habits, Viruddha-ahara, mental stress, Addictions, Suppression of natural urges also act as Dooshivisha in one aspect and as Garavisha in others. Concept of Dooshivisha is similar to latent poison and Garavisha similar to accumulation of toxins and these lead to production of many diseases including cancer. So while treating cancer, treatment of Dooshivisha and Garavisha must be tried. Like all other Ayurvedic treatment, Pathyapathya have an important role in management of cancer, so along with treatment it should also be strictly followed.

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