

**Conceptual study of kalamegh in gynaecology w.s.r.to cancer.**


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Jyoti R Damale<sup>1</sup>, Amit Avalaskar<sup>2</sup>.

1. M.D Sch.Dravyaguna Vidnyan.
2. M.D Dravyaguna Vidnyan.SSAM, Hadapsar, Pune- 28.

Dept. of Dravyaguna Vidnyan, SSAM, Hadapsar, Pune -28.

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**ABSTRACT:**

*Kalamegh* is a most useful dravya in *Ayurveda* and usually used on *jwara* and *kamala* but regarding review of some previous research it is proved that it also has a anti-carcinogenic activity about which is very useful to treat all types of

Cancer including Cancer of Breast, cervix and Ovary in Females. Here we focusing on the exactly action according Ayurvedic view about *Kalamegh* and its use in practice

**Key words:** Anti-Carcinogenic activity;*Kalamegh*;*Jwar*.

-Species- *paniculata* nees.

**INTRODUCTION:**

*Andrographis paniculata* is also known as “King of Bitters”. Since ancient times, it has been used in Asia to treat different kind of infections. It is found in the Indian pharmacopoeia and it is incorporated in at least 26 principal Ayurvedic formulas.

It is an erect branched annual herb 0.3 meters to 0.9 in height with quadrangular branches, leaves simple, lanceolate, acute at both ends, glabrous, main nerves 4-6 pairs, flowers small, pale but blotted and spotted with brown and purple distant in lax spreading axillary and terminal racemes panicles, Calyx-lobes glandular, pubescent, anther bearded at the base, fruits linear capsules, acute at both ends, seeds numerous, yellowish brown, sub quadrate.

**Botanical Classification:**

- Kingdom- Plantae
- Division- Angiospermae
- Class: Dicotyledonae
- Order- Tubiflorae
- Family- Acanthaceae
- Genus- *Andrographis*.

**Rasa-Tikta**

**Virya-Sheeta**

**Vipaka-Tikta**

**Guna-Ruksha, Laghu**

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The plant is bitter, acrid, cooling, laxative, antipyretic, antiperiodic, anti-inflammatory, expectorant and depurative.

It is used in hyperdipsia, burning sensation, wounds, ulcers, chronic fever, cough, bronchitis, leprosy, dyspepsia, flatulence, colic and in vitiated pharmacological activities are contributed condition of *pitta*.

**USEFUL PARTS:** *Panchang*;

*Andrographolide* concentrated in Leaves so that it gives bitter taste to *Kalamegha*.

**marker constituents:** -Andrographolides

The main active ingredients of this plant are andrographolides, which due to their chemical structure; belong to the diterpene lactones group. The biggest amount of andrographolides is found in the leaves thus giving the plant a bitter taste.

**Leaves contain:**-diterpene lactones such as neoandrographolide, andrographiside, 14-deoxy-11,12-didehydro andrographolide etc, flavonoids viz, oroxylin, wogonin, andrographidine A, B, C, D, E, F.

Beside this caffeic acid, chlorogenic acid, dicaffeoylquinic acid, carvacrol, eugenol, myristic acid, hentriacontane and triacontane.

**Stem contains:** sesquiterpene, lactones.

According to Ayurved homeostasis is function of *Agni*. When there is any disturbance in *agni* disease

occur. *Kalamegha* is *Tikta rasatmak dravya*. *Tikta rasa* is better for *agnivaradhana* so that due to *Prakrut agni* abnormal growth can be minimized.

**ANTICARCINOGEN ACTIVITY:**

*Andrographis paniculata* is known to have potent immunostimulatory properties. It exhibits antimalignant activity in the following ways:

- 1] Antigen Specific response.
- 2] Non specific immune response.
- 3] Cell differentiation –inducing activity
- 4] Cytotoxic activity

The anti-cancer activity of *Andrographis paniculata* is rooted in the mechanism of immune stimulation. When cell develops normally at each stage of development, the cells become more specialized in order to perform their specific action. In malignancy the normal impaired cells do not mature and more closely resemble the immature body cells. The immature cancerous cells are not differentiated from the immature body cells, which leads to faster growth and spread of malignant cells called metastasis.

If a cancer cell is made to mature or to differentiate from the immature body cell, it will not have an ability to grow out of control.

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*Andrographis paniculata* contains terpenes, which are known to cause differentiation of cancer cell.

*Andrographis paniculata* is known to possess a potent cell differentiation inducing activity on leukemia

Cell. The cell killing property was demonstrated against human epidermoid carcinoma that is squamous cell carcinoma of skin lining of nasopharynx and against lymphocytic leukemia cells. It is known to blocks the growth of prostate cancer and non Hodgkin's lymphomas. It is claimed that *Andrographis paniculata* probably inhibits synthesis of cancer cell. *Andrographis paniculata* can be use in practice.

**Indications:** Vulvovaginitis; All types of cancer including Breast cancer, Ovarian cancer and cancer of cervix.

**References:**

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*Andrographis paniculata* extract is also known to have cytotoxic activity. It is the andrographolide component which is responsible for the cytotoxic activity. It inhibits the growth of tumors.

*Andrographis paniculata* also inhibit human breast cancer cell at level similar to the drug Tamoxiphen. *Andrographis paniculata* has also been studied for its anti-cancer effects in vitro

[Outside the body] testing and animal research that *Andrographis paniculata* has an anti proliferative effect meaning it is able to slow the spread of cancer cell. The herb does not appear to be able to induce cancer cell death however.

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