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# LITERATURE REVIEW OF DRAKSHA (VITIS VINIFERA)

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### ABSTRACT

The *draksha* (*vitis vinifera*), belonging to family vitaceae, is used since ancient time for therapeutic purposes. *Draksha* has been widely used in the traditional Indian medical system of 'Ayurveda' for the treatment of a variety of ailments. *Draksha* is *madhura* and *kashaya* in taste (*Rasa*), and its *vipaka* is *madhura* and *veerya is sheeta*. It is *vatapitta shamaka*. In literature it is found that *draksha* is useful in many diseases like *swarabeda(throat disorder)*, *dourbalya (fatigue)*, *raktapitta* (*bleeding disorder*), *netraroga*, (*eye disorder*) *rajayakshma (tuberculosis)*, *daha(burning sensation)*, *trshna(thirst)*, *jwara (fever)*, *vamana (vomiting)*, *shukra dourbalya (semendisorder)*. It is identified as vitis vinifera from the family vitaceae, worldwide renewal of interest in herbal system of medicines. It is very essential to have a proper documentation of such useful medicinal plants. In this review an attempt is made to compile and document information from literature on *Draksha*.

Keywords: Draksha (vitis vinifera.), Ayurveda, draksharishta

### INTRODUCTION

Draksha are commonly used as fruit all over the world. As per *Ashtanga Hridaya sutrasthana*, *Draksha* is said as *phalottama* i.e, of all the fruits, grape is the best.

### Morphology:

It is a large climber. Flowers are light green in colour. It is known for its commercial value and cultivated in North-western India, in Punjab, Baluchistan, and Afghanistan. The grape vine has long woody stems rooted to ground. Stems are covered with flaky bark. The grape vine usually grows upto 35meters. Leaves are alternative, broad and palmate.

The colour of unripe fruit is usually green and ripe fruit is dark purple. Ripe fruits are grey.

The fruits are *madhura rasa*, have *rechaka* property, haematinic, diuretic, aphrodiasic, rejuvenating, nervine tonic, and has anti spasmodic property. Useful in conditions of *pitta* and *kapha*, *daha* (burning sensation), *vibanda* (constipation), *pandu* (anaemia), emaciation, etc. Leaves are astringent. It is diuretic, Used in skin disease, splenomegaly etc. Ash of the stem is best for arthralgia, haemorrhoids and vesicle calculi. Flowers are expectorant, haematinic. And are useful in anaemia, amenorrhoea and dysmenorrhoea.<sup>1</sup>

### Historical aspects of *draksha* 1. *Samhita* Era:<sup>2</sup>

*Charak Samhita:* In *Caraka Samhita*, Draksha is described as *kanthya* (*virechanopaga, kasahara, shramahara*.

Sushruta Samhita: In Susruta Samhita, Draksha is described in Parushakadi gana.

Ashtanga Hrudaya: In Ashtanga hrudaya, draksha is described in Parushakadi gana.

# 2. Nighantu Era:

In *Nighantu*, many drugs have been described in detail by giving different synonyms, their properties and uses.

## Kiayadeva Nighantu:

*Oshadhi varga*-group of medicinal herbs and substances.

*Madya varga*-group of herbs from which wine can be prepared.

# Bhavaprakasha:

Amradiphala varga

### Dhanvantari Nigantu:

*Swadu triphala*-grapes, dates and *kashmari* fruit (Gmelina abrorea)

### 3. Modern Era: -

**1) Indian Material Medica<sup>3</sup>-**The author of this book has mentioned vernacular names and chemical constituents of this drug. Fruits are indicated in many diseases.

**3) Indian medicinal plants<sup>4</sup>-** It includes five varieties of fruit, uses of leaves, ash of the stem and dried fruits.

**4) The Ayurvedic Pharmacopeia of India**<sup>5</sup>-It includes microscopic and macroscopic description of *draksha*. Identity, purity and strength of *draksha*. It also described about constituents, properties, actions, formulation and dose of the drug.

**5) Indian Medicinal Plants**<sup>6</sup>-*Draksha* is mentioned in this book including *sanskrit* meaning, part used properties, and uses of *Draksha* 

Synonyms of *Draksha* and its interpretation<sup>7</sup>

Synonyms have lot of importance in *Ayurveda*. It originates from the properties and action of the drugs. Sometimes synonyms of the drug indicate specificity and specialty of the drug.

Mrudvika- soft in nature.

Gostani – resembles cow udder

Swaduphala, Madhurasa,

Madhuyoni – sweet in nature

Bruhmani – nourishing

*Rasaala* – juicy *Guda* – sweet as jiggery

Vrushya – aphrodisiac

Krushna – black in nature

*Priyala, Tapasapriya, Charuphala* – fruit with good looks.

# Vernacular names of Draksha<sup>8</sup>

Hindi name- Angoor, Dakh, Munakka English name- dry grapes, raisins commongrape-vine Telugu name- Drākṣa Kannada name – Drakshi, Ona Drakshi Tamil name – Tiraatchi Marathi name – drakshe Pataniaal alagsification:

# **Botanical classification:**

Kingdom	Plantae
Unranked	Angiosperms
Order	Vitals
Family	Vitaceae
Genus	Vitis
Species	V. vinifera

### **Properties** (*Rasapanchak*)<sup>9</sup>

Rasa – madhura Guna-snigdha, guru, mrudu Virya-sheeta Vipaka-madhura Karma -vatapitta hara, vrshya, brmhana, chakshushya, virechanopaga, swarya.

## **Chemical composition:**

Fruits-catechin, epicatechin, beta-sitosterol, ergosterol, jasmonic acid,glucose, fructose, galactose, mannose, arabinose, rhamnose, tannic acid, mallic acids.

## Therapeutic constituents<sup>10:</sup>

The main basic element of grape is manganese. It also contains vitamin B6, thiamine, riboflavin, vitamin C and potassium. Many studies demonstrated that it also contains a chemical substance i.e, resveratrol, a polyphenol which has antioxidant properties.

### **Pharmacological action**:<sup>11</sup>

*Vitis vinifera* has shown presence of Antioxidant, Antifungal, Antiulcer, Hepato -Protective, Wound Healing, Anti Mutagenic, Anti Herpetic, Cardio Protective, Breast Cancer Suppressor, Angiotensin-Converting Enzyme (ACE), and Antibacterial Activity.

# Arginine<sup>12</sup>

Found in the pulp of the fruit. It is a semi-essential amino acid. It is involved in many metabolic processes and important in the treatment of heart diseases and high blood pressure. Arginine improves the circulation and oxygen supply of the coronary and peripheral vessels through the release of nitric oxide. When people take arginine, the nitric oxide level in the blood increases. Nitric oxide relaxes the walls of the blood vessels and thereby improves the circulation in the whole body. The physiology of arginine, a marked result is seen in the symptom *hridrava*. Arginine supports the production collagen and is therefore an important contributor to bone growth. In turn, arginine supports the growth of the osteoblasts which form the bone mass

# Alanine<sup>13</sup>

It is a non-essential amino acid found in the fruit. Amino acids are the building blocks of protein which helps in building strong and healthy muscles. Alanine has shown to help protect cells from being damaged during intense aerobic activity, when the body catabolize muscle protein to help produce energy. Thus, one can say by the action of alanine the symptom *dourbalya* is reduced.

Alanine process vitamin B especially vitamin B5 and B6 while mentioning the pharmacological activities of *draksha* angiotensins converting enzyme activity has been mentioned. Renin –Angiotensin plays its role in hypertension and atherosclerosis. It helps in fluid haemostasis regulation. Angiotensin II stimulates the proliferation of CD34+ cord blood cells in vitro. Renin angiotensin helps in regulating hematopoietic progenitor differentiation and self-renewal. Ang (1-7), Ang II receptor antagonists and ACE inhibitors are commonly used for treatment of cardiovascular disease, post-transplantation, erythrocytosis/polycethemia *vera*.

# Formulations and preparations

Draksha ghrita, draksharishta, draksha avaleha, drakshasava, drakshadi kwatha churna, drakshadi churna, eladi gutika etc.

# Doses <sup>14</sup>

5-10gm of the drug

### DISCUSSION

*Draksha*, which are liked by a child to old age people, because of its *madhura rasa (sweet taste)* and *rasaala* property. They are soft, heavy to digest and increase the moistness of body tissues. By virtue of these properties, this fruit alleviates *vata* and *pitta*. Hence these are used in diseases which arise due to vitiation of *vata* and *pitta*.

The compactness, consistency, flavour and variety of grapes have made them a popular finger food in countries all over the world. The potential health benefits of consuming grapes are numerous, with past studies associating them with prevention of cancer, heart disease, high blood pressure and constipation. Grape contains flavonoids, which can have antioxidant effects, lower the levels of low density lipoproteins, relax blood vessels, and reduce the risk of coronary heart disease.

### CONCLUSION

All the *acharyas* has stated that *draksha* are mainly used in *pandu*(anaemia), *viban-da*(constipation), *jwara*(fever), *trshna*(thirst), *ajeerna*(indigestion) and many other disorders. An attempt is made to collect some information about *draksha*. Further studies have to be done to know the hidden riddles of *draksha*.

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