



**CONCEPTUAL STUDY ON ANTI-TOXIC ACTION OF *KSHIRIVRIKSHA TWAK LEPA*
ON *KEET-VISHA LAKSHANA*; A REVIEW**

Dr. Shital M. Tekale^{1*}, Dr. Naganatha S. Gangasagre², Dr. Shital P. Mirajkar³, Suhasani M. Lahankar⁴

¹PG Scholar (Agadtantra), Government Ayurvedic College, Osmanabad, Maharashtra, India.

²Professor, HOD and Guide of Agadtantra Department, Government Ayurvedic College, Osmanabad, Maharashtra.

³Assistant Professor of Agadtantra Department, Government Ayurvedic College, Osmanabad, Maharashtra.

⁴Associate Professor of Agadtantra Department, Government Ayurvedic College, Osmanabad, Maharashtra.

***Corresponding Author: Dr. Shital M. Tekale**

PG Scholar (Agadtantra), Government Ayurvedic College, Osmanabad, Maharashtra, India.

Article Received on 06/05/2018

Article Revised on 27/05/2018

Article Accepted on 17/06/2018

ABSTRACT

In *Ayurveda* there is a single drug enough to cure signs and symptoms but combination to related *Guna* and *Karma* is one of the best parts of *Ayurveda*. *Agadtantra* is a specialized branch of *Ayurveda* which deals with *Visha* (poison) and its management. *Aacharya Sushruta* explained 67 types of *Keetvisha* and its sign and symptoms *Kshirivriksha twak lepa* is explained formulation where *lepa* is prepared it is indicated in local symptoms cause due to *Keetvisha* (insect bite) that symptoms are *Daha, Rag, Shofa, Paka, Vaivarnya* etc. The ingredients of *Kshirivriksha twak lepa* are having anti-oxidant, anti-toxic, anti-inflammatory, anti-allergic property. The main objective of this article is to discuss the anti-toxic action of *Kshirivriksha twak lepa* on *Keetvisha lakshana*.

KEYWORD: *Visha, Kshirivrikshatwak Lepa, Keetvisha, Skin.*

INTRODUCTION

Ayurveda literatures are broad field of various drug formulations. *Agada* has deleterious action of *Visha* or poison. In *Sushrut samhita kalpa* (8) *Keetkalpa* divided in *Vataj* (18), *Pittaj* (24), *Kaphaj* (13) *Sannipataj* (12) these *Keetvisha* has various *Vishakar anga* when it bite the toxic harmful symptoms shown as required to its *Visha adhishtana*. There is local symptoms is *Kandu* (itching), *Shofa* (swelling), *Supti* (loss of sensation), *Kled upashoshanam* (warmth around the wound), *Paka* (pus discharge), redness, pain loss of sensation^[1]. etc. In this *Keetvisha lakshana* effective *kalpa* is *Kshirivriksha twak lepa* used the reference in *Charak chikitsasthan vishachikitsa adhyay* (23)^[2], and *Ashtang hrudaya Vagbhat uttarantra* (37)^[3]. *Kshirivriksha* also called *Panchavalkal* in *Bhavprakash samhita*^[4]. It contains *Vata, Udumbar, Ashvatha, Parish, Plaksha, Lepa* having *Vranaropan* properties which bring pigmentation of *Pidaka* it has properties of *Kapha-vatahara* and also *Varnya, Vranaropan, Raktashodhak* property. Hence by using drugs in the form of *lepa*. It has

also the properties of *Vrana-prasadana*, anti-inflammatory, this *lepa* used on locally^[5]. This article is based on the textual review and clinical experiences descriptions related to *Kshirivriksha twak lepa* were collected from *Charak chikitsasthan* (23), *Sushrut kalpa* (8), and *Ashtang Hruday uttar* (37). Revelant textual literature and scientific publications were referred. The ingredients of *Kshirivriksha twak lepa* according to *Charak chikitsa sthan* (23) along with the *Rasapanchak*.

AIM -To study the effect of *Kshirivriksha twak lepa* in *Keetvisha*

Objective

- 1) To study the anti-toxic effect of *Kshirivriksha twak lepa* in *Keetvisha*.
- 2) To study the Pharmacological action of *Kshirivriksha twak lepa*.
- 3) To study the toxic effect of *Keetvisha* in *Ayurvedic* view.

MATERIAL AND METHODS –Material^[6]

Sr.	Dravya	Latin name	Family	Rasa	Guna	Virya	Vipaka	Doshaghnata
1.	Vata	<i>Ficus bengalensis L.</i>	Moraceae	Kashay	Guru, Ruksha	Sheet	Katu	Kaph-pitta shamak
2.	Udumbar	<i>Ficus glomerata Roxb.</i>	Moraceae	Kashay	Guru, Ruksha	Sheet	Katu	Kaph-pitta shamak
3.	Ashwatha	<i>Ficus religiosa</i>	Moraceae	Kashay Madhur	Guru, Ruksha	Sheet	Katu	Kaph-pitta shamak
4.	Parish	<i>Thespesia populnea</i>	Moraceae	Kashay	Guru, Ruksha	Sheet	Katu	Kaph-pitta shamak
5.	Plaksha	<i>Ficus lacor</i>	Moraceae	Kashay	Laghu, Ruksha	Sheet	Katu	Kaph-pitta shamak

Method of preparation –Fine powdered of Vata, Udumbar, Ashwatha, Parish, Plaksha twak are prepared and mixed with water and make this semisolid paste of Lepa^[7].

Properties of Kshirivriksha**1. Vata –**

1. Latin name -*Ficus bengalensis L.*

2. Family - Moraceae

3. Chemical constituents – 3 ketons - 20 tetratriacontene-2-one,6 heptatriacontene-10-one, Pentatriacontane 5-one, β -sitosterol- α -D-glucose, Leucopelargonidin (Bark)^[8].

4. Pharmacological action

a) Anti-inflammatory activity –

Ethanol and petroleum ether extracts of Vata that show reduce inflammation

b) Anti-tumor activity-

Extract from fruit exhibited antitumor action.

c) Anti-diabetic activity –

Aqueous extract to feed glucose loaded it significantly decreased the blood glucose level restore the levels of serum electrolyte, glycolytic enzymes.

d) Anti-bacterial activity –

Extract from fruit acts as anti-bacterial action.

e) Anti-oxidant activity –

Extract was investigated for its anti-oxidant activity by 1,1-diphenyl hydroxyl radical, hydrogen peroxide activity^[9].

5. Pharmacological action by Ayurveda – Vranaropan, Varnya, Visarpahara, Dahashamak, Stambhan, Phala useful in Madhumeha^[10].

2. Udumbar

1. Latin name – *Ficus glomerata Roxb.*

2. Family - Moraceae

3. Chemical constituents – Methanol, phenolic, flavonoid, nitric acid, cellulose, tannin and lignin^[11].

4. Pharmacological action by Modern

a) Anti-bacterial activity –

Show effect on Bacillus subtilis, pseudomonas aeruginosa, staphylococcus aureus and bacillus.

b) Anti-fungal activity–

The plant potent inhibitory activity against 6 species of fungi- trichophyton rubrum, candida albicans etc.

c) Anti-ulcer activity–

The 50% ethanol extract of fruits was studied in different gastric ulcer.

d) Wound healing property–

Ethanol extract from bark showed potent wound healing.

e) Anti-inflammatory activity –

Ethanol extract from leaves exhibited maximum anti-inflammatory effect^[12].

5. Pharmacological action by Ayurveda – Kaphapittashamak, Varnya, Vranaropana, Raktavikarahara, Stambhana, Raktasangrahaka, Dahaprashamanam^[10].

3. Ashvatha-

1. Latin name – *Ficus religiosa*

2. Family – Moraceae

3. Chemical constituents –Flavonoids like Quercetin, β -istosteryl-d-glucoside, Vitamin k, tannins, phenols, steroids, alkaloids^[13].

4. Pharmacological action

a) Anti-diabetic activity –

Aqueous extract used orally of F.religiosa is showed pronounced reduction in blood glucose levels.

b) Anti-microbial activity –

Antibacterial activity of F.religiosa against Bacillus cereus and Escherchia coli similarly chloroform extract of F.religiosa showed strong inhibitory activity against infectious activity against infectious salmonella typhi, proteus vulgaris.

c) Anti-inflammatory activity –

The methanolic bark extract have significant anti-inflammatory activities orally. It is significant an acute and chronic inflammation.

Extract also protected mast cells from degranulations. Paste powdered bark is good absorbent for inflammatory swelling.

d) Anti-oxidant activity –

The aqueous and alcoholic root extract possess remarkable antioxidant property.

e) Wound healing property –

Leaf extract of *F.religiosa* acts wound healing property. In itching or eczema is advised to drink decoction of Peepal bark^[14].

5. Pharmacological action by Ayurveda – Kaphapittashamak, Varnya, Vranaropana, Raktasangrahana, Stambhan, Shotha, Kustha^[10].

4. Parish –

1. **Latin name** – *Thespesia populnea*

2. **Family** – Moraceae

3. **Chemical constituents**- Quercetin, iupenone, myricyl alcohol, lupeol, β -istosteryl, 8dihydroxy-7-methoxyflavone, thespesin^[15].

4. Pharmacological action

a) Wound healing activity –

Aqueous extract of *T.populnea* fruit show significant activity in excision and incision wound.

b) Anti-oxidant activity–

Aqueous and methanol extract of *T.populnea* bark is significant antioxidant activity.

c) Anti-inflammatory activity –

Petroleum ether and ethanol, unsaponifiable matter and fatty acids were separated from seed oil it showed significant anti-inflammatory and analgesic activity.

d) Anti-bacterial activity –

Flavonoids reported having much antimicrobial antioxidant property^[16].

5. **Pharmacological action by Ayurveda** – *Vatapittashamak, Krimighna* useful in *Kandu, Kustha, Prameha*^[10].

5. Plaksha -

1. **Latin name** – *Ficus lacor*

2. **Family** – Moraceae

3. **Chemical constituents** – Amyrin,

4. Pharmacological action

a) Anti-inflammatory activity –

Effect of aqueous and methanolic bark extract of *F.lacor* acts as inflammatory its useful in female genital ulcer, erysipelas.

b) Anti-ulcer activity –

Stem bark is used as gastric ulcer orally .the bark is used to expelling round worms and treatment on leucorrhoea^[17].

5. **Pharmacological action by Ayurveda** – *Kaphapittashamak, Vranaropan, Dahaprasamanam, Raktapittaghna, Shothaghna*, use in *Dushtavrana*^[10].

DISCUSSION

Kshirivriksha contains 5 drugs most of these drugs are having *Kashay, Madhur rasa, sheet Virya, Katu Vipak, Vishahna, Kushtaghna, Vranropan, Raktashodhak karmas*. These drugs are reported to have pharmacological actions such as anti-oxidant, anti-inflammatory, anti- allergic, anti-bacterial individually. Some of these drugs have wound healing property .the preparation of *Kshirivriksha twak lepa* has best wound healing , anti-toxic , anti- inflammatory property which makes it suitable for use in treatment *Keetvisha lakshana* where fast action is required.

CONCLUSION

Kshirivriksha twak lepa described by *Charak chi (23)* and *Ashtang Hrudaya* useful in *Keetvisha lakshana*. However, most of the drugs are having *Vishghna, Vranaropak, Raktashodhak karmas*. The use of

Kshirivriksha twak lepa in wound healing property anti-inflammatory allergic problems also justified theoretically. The review is to provide collective knowledge on pharmacological therapeutic and medicinal use of *Kshirivriksha twak lepa*. This would motivate researchers the clinicians to further establish the drug in clinical practices.

REFERENCE

1. Ambikadatta Shastri, *Sushrut Samhita, Kalpasthan (8), Kitakalpa*, Edition- 2005, Published by *Varanasi choukhamba Sanskrit sansthan* ,Hindi translation;p.63,64,65,77.
2. Priyavat Sharma, Ravidatta Tripathi, *Charak Samhita, Chikitsasthan(23) Vishachikitsa,(25) Dvivraniyachikitsa adhyay*, Edition-2013, Published by *Dilhi choukhamba sanskrit pratishthan*; p.566,568,608,617.
3. Ganesh Krushna Garde, *Sarth Vagbhat, Ashtang Hrudaya, Uttantantra (37) kitalutadivishapratischedh adhyay*, Published by *Rajesh Prakashshan, Marathi transalation*; p.456, 469.
4. Bramhashankar Mishra and Rupalal G.Vaishya, *Bhavaprakash Samhita, Vatadivarga*, Edition-2001, Published by *Varanasi choukhamba Sanskrit bhavan* ; p.519,520.
5. Ayurline-International Journal of Research in India Medicine, Clinical evaluation of *Panchavalk kashay dhavan*, In the management of diabetic wound. Arun Sonekar, Yogesh B More, Rajenra Sonekar, e-ISSN awaited, sept.2016.
6. *Aacharya Priyavat Sharma*, textbook of *Dravyaguna, Choukhamba Prakashan*, reprinted 2017.
7. Siddhinandan Mishra, *Bhishajya Ratnavali, Vranashothadhikar*, Edition-2016, Published by *Varanasi Surabharati prakashan*, hindi translation;p.819,822.
8. Saeed Ahmad Huma Rao et al. Phytochemical composition and pharmacological prospectus of *Ficus Bengalensis linn*. A review dept. Of Pharmacy. The Islamia University of Bahawalpur Pakistan.
9. Baby Joseph, S.Justin Raj-An Review – *Ficus Bengalensis Linn*. Interdisciplinary research centre, Department of Biotechnology Malankara catholic college Mariagin India. Rajstephy6@gmail.com
10. Shanth kumar Lucas, *Dravyaguna Vijnana, Chaukhambha Visvabharati, Varanasi India, Vol2, edition-2008*.
11. Manohar L S et al. Phytopharmacological study of *Ficus glomerata* Review CMj, University Modrina Shillong Jammu 180001 India.
12. Padman M Parakh-*Ficus racemosa Linn*.-An overview dept. Of Pharmacognosy , the oxford college of pharmacy JP Nagar, Bangalore-Karnataka-Pune, padmaparas@hotmail.com
13. Inder kumar Makhija et al. Phytochemistry and pharmacological properties of *Ficus religiosa* on overview dept. Of Pharmacognosy Karnataka, India

- at- www.scholarsresearchlibrary.com .
14. International Journal of pharmaceutical sciences and research-projected impact factor (2017):0.59(ijpsr.com)Thomson Reuters-ESCI
 15. T. Shelkshavali and Shivkumar Hugar, Antimicrobial activity of *Thespesia populnea*, Indian journal of natural product and resources, dept. Of pharmacology Shimoga Karnataka India.
 16. Mohini A Phanse *et al.* International Journal of Pharmacy and Pharmaceutical sciences, Review on pharmacological studies of *Thespesia populnea* Linn. Modern college of Pharmacy Nigdi Pune, vol.5 issue3.
 17. Rakesh K Sindhu *et al.* Research article, Therapeutic effect of *Ficus Lacor* Aerial roots of various fractions an adjuvant induced arthritic rats, Chitkara college of Pharmacy Rajpula, Patiala Punjab India, <http://dx.doi.org/10.1155/2013/634106>.
 18. Aravind D *et al.* Review Article-Conceptual study on anti-toxic action of *Ksharaagada*, draravidd226@gmail.com