



Therapeutic Potential of Ikshuraka (*Asteracantha longifolia* Nees.): A Review

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Ayurveda delves its roots through "Swasthasya Swasthya Rakshanam Aturasya Vikara Prashamanam cha" which means to keep the health of the healthy person and to cure the diseased condition. The goal of Ayurveda is to extend a person's healthy life in terms of their mental, physical, social, and spiritual well-being. In the classical literature (*Asteracantha longifolia* Nees.) synonymously known as Kokilaksha has Vrishya (aphrodisiac), Mutravirechaka (diuretics), Rasayana (rejuvenating) and Ashmaribhedaka (lithotryptic) properties. Its multidimensional therapeutic applications across Samhitas, Nighantus and Chikitsa Granthas reflect its significant role in the management of disorders related to different Srotas. It is one of the most important herbs commonly used in the traditional system of medicine. Ikshuraka is specifically described in the Samhitas, Nighantus and Chikitsa Granth along with synonyms and therapeutic indications. It is most used in Vatarakta, Shoola, Gulma, Agnimandhya, Raktapitta, Pleeha Roga. The present review of *Asteracantha Longifolia* Nees. can be useful to know about the different formulation and their indication in various disorders along with different pharmacological activities. In this article all the formulations mentioned in Ayurveda classical texts have been described, along with the formulations mentioned in Chikitsa Grantha have also been described, and it has also been told which formulation is used for which disease.

Keywords: Ikshuraka, *Asteracantha longifolia* Nees., Pharmacological activities, Kokilaksha

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Introduction

Ikshuraka (*Asteracantha longifolia* Nees.)[1] also known as *Kokilaksha*[2] is a plant growing in watery ditches, have *Sheetala*, *Vrishya*, *Madhura*, *Pichhila*, *Snigdha* properties. It is prescribed in *Amashotha* (inflammation), *Ashma* (stone), *Trishna* (thirst), *Drushti* (vision) & in *Vatarakta* (gout).[2] *Ikshuraka* describe in *Charaka's Shukrashodhana Mahak-ashaya*. [3] Apart from this, it is prescribed as aphrodisiac (*Vrishya*)[4], Rejuvenation (*Rasayana*) [5] and Lithotriptic (*Ashmari bhedak*). [6] *Sushruta* has prescribed its *Kshar* in *Plehodara*[7] (Splenomegaly), *Ksharavaleha* in *Gulma*[8] (Abdominal lump), *Ksharagad* in *Sarva Visha*[9](Poisoning) and powder of its fruits and seeds mixed with sugar and consumed with luke warm milk is aphrodisiac (*Vrishya*). [10] *Ikshuraka* root is prescribed in colic pain. *Vagbhata* has specially mentioned it in *Vasishtha Rasayana* and *Vajikarana*. [2] Decoction of *Ikshuraka* produces sleep and of its vegetable as diet alleviates *Vatarakta*. [11] *Chakrapani* and *Dalhan* have considered *Ikshuraka* and *Kokilaksha* as synonyms. They consider *Talamkhana* (*Asteracantha longifolia* Nees.) to be different from it. *Sushruta* and *Vagbhata* used the word *Kokilaksha* very limitedly, whereas in *Vajikarana* only *Ikshuraka* is mentioned. Even in such a situation, there is no doubt that both are similar substances. If *Asteracantha longifolia* is taken from *Ikshuraka*, then some species of *Hygrophila* should be taken from *Kokilaksha*. In *Nighantu*, both are synonyms, thus *Ikshuraka* has also come in the synonyms of *Shar*, *Kash* and *Ikshu*. [1]

Materials and Methods

Literary review of the current literary research was done by referring various classical texts like - *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Harita Samhita*, *Bhava Prakash Samhita*, *Bhel Samhita*, *Madhav Chikitsa*, *Vrindmadhava Chikitsa*, *Chakra Datta*, *Vanga Sena*, *Gada Nigraha*, *Bhaishajya Ratnavali*, *Bhava Prakash Nighantu*, *Ash-tanga Nighantu*, *Raja Nighantu*, *Sodhal Nighantu*, *Hridaya Deepak Nighantu*, *Priya Nighantu*, *Kaiya Deva Nighantu*, *Shaligarm Nighantu*, *Sushruta Nighantu* etc. to extract information regarding *Ikshuraka* (*Asteracantha longifolia* Nees.). Also, the review has been done following various research, journals and Internet sources.

Botanical Specification of *Ikshuraka*[12]

Root - Mostly adventitious, whitish to brown; no characteristic odor and taste.

Stem - Usually unbranched, fasciculate, sub-quadrangular, swollen at nodes, covered with long hairs which are numerous at the nodes, externally greyish brown, creamish brown in cut surfaces, no characteristic odor and taste.

Flower - Yellowish-brown, usually occurring in apparent whorls of eight (in 4 pairs) at each node; bracts about 2.5 cm long, with long white hairs; calyx 4-partite, upper sepal 1.6-2 cm long, broader than the other three, which are 1.3 cm long, all linear-lanceolate, coarsely hairy on the back and with hyaline ciliate margins; corolla 3.2 cm long, widely 2 lipped, tube 1.6 cm long, abruptly swollen at top; stamens 4, didynamous, second pair larger; filament quite glabrous; anthers two celled, subequal, glabrous; ovary two celled with 4 ovules in each cell; style filiform, pubescent; stigma simple, involute with a fissure on upper side.

Fruit - Two celled, linear-oblong, compressed, capsule about 0.8 cm long, pointed, 4-seeded.

Seed - Ovate, flat or compressed, truncate at the base, 0.2-0.25 cm long and 0.1-0.15 cm. wide, hairy but appearing smooth; when soaked in water immediately get coated with mucilage, light brown; taste slightly bitter and odour not distinct.

Distribution - *Asteracantha longifolia* Nees. growing in watery ditches[14] throughout India and in Ceylon. - Tropical and S. Africa region.[13]

Vernacular Names[13]

Bihar - *Kantakulika*, *Talmakhana*; **Ben.** - *Kantakalika*, *Kulaka*, *Kuliakhara*, *Shulamardan*; **Guj.** - *Ekharo*, *Gokhru*; **H.** - *Gokhulakanta*, *Gokshura*, *Kailaya*, *Talmakhana*; **Mar.** - *Talimakhana*, *Vikhara*; **Sans.** - *Atichhatra*, *Bhikshu*, *Chhatraka*, *Ikshugandha*, *Ikshura*, *Ikshuvalika*, *Kakekshu*, *Kandekshu*, *Kokilaksha*, *Kokilanayana*, *Kshura*, *Kshuraka*, *Kulahaka*, *Pichhila*, *Pikekshana*, *Shrigalaghanti*, *Shrigali*, *Shrinkhali*, *Shukla pushpa*, *Shuraka*, *Vajra*, *Vajrakantaka*, *Vajrasthi*, *Virataru*; **Tam.** - *Neremulli*, *Nirmalli*; **Tel.** - *Neerugubbi*, *Nirguviveru*; **Urd.** - *Talimkhana*

Synonyms[14]

1. *Kokilaksha* - A cuckoo's eyes resemble those of a seed.

2. *Adhyanda* - Uses as aphrodisiac.
3. *Ikshugandha* - Smelling like sugarcane.
4. *Ikshuraka* - The nighttime scent of sugarcane.
5. *Kantakguchha* - The spines are arranged in a circle on nodes.
6. *Kandekshu* - Having stem with nodes like that of sugarcane.
7. *Kshura* - The spines being sharp.
8. *Talmakhana* - Plant growing in watery ditches.
9. *Tilkantaka* - It looks like sesamum plant but thorny.
10. *Pichhila* - Mucous consistency of the seeds.
11. *Plihashatru* - The ash of plant useful in splenomegaly.
12. *Shrinkhalika* - Due to the festive nature of the stem.
13. *Sukhara* - The entire plant is very rough.

Synonyms in Various Nighantus [15-22]

S.N. Synonyms	BP.Ni.	A.Ni.	R.Ni.	S.Ni.	Hr.Ni.	Pr.Ni.	Ka.Ni.	Sh.Ni.
1. Adhyanda		✓						
2. Bahukantaka				✓				
3. Bhikshu	✓						✓	✓
4. Dhvanksha							✓	
5. Ikshugandha	✓		✓				✓	✓
6. Ikshura	✓		✓	✓	✓		✓	✓
7. Ikshuraka		✓				✓		
8. Ikshuvalika	✓	✓			✓		✓	✓
9. Ikshu			✓					
10. Kakekshu	✓	✓						✓
11. Kanda			✓					
12. Kandekshu	✓	✓						✓
13. Kantakguccha				✓				
14. Kokilaksha	✓				✓	✓		✓
15. Kshura	✓		✓		✓		✓	✓
16. Kshuraka	✓		✓					✓
17. Kshurikapatra			✓					
18. Picchila			✓					✓
19. Pikekshana			✓					✓
20. Sayaka			✓					
21. Shara			✓					
22. Shrinkhalika			✓					✓
23. Sukhara				✓				
24. Talmakhana						✓		
25. Tilkantaka							✓	
26. Utkata			✓					
27. Vajra			✓				✓	
28. Vajrakantaka			✓					✓
29. Vana			✓					
30. Vishikha			✓					

[**BP.Ni.**- Bhava Prakash Nighantu, **A.Ni.** - Ashtanga Nighantu, **R.Ni.** - Raja Nighantu, **S.Ni.** - Sodhal Nighantu, **Hr.Ni.** - Hridaya Deepak Nighantu, **Pr.Ni.** - Priya Nighantu, **Ka.Ni.** - Kaiya Deva Nighantu, **Sh.Ni.** - Shaligram Nighantu.]

Therapeutic Utilization of *Ikshuraka*

Ikshuraka in Classical Texts

1. Shukrashodhaka - It has been included in *Shukrashodhana Mahakashaya* (C.Su.4.20) by Acharya Charaka.

2. Vajikarana (Aphrodisiac) - *Ikshuraka* has been used as a constituent in various compounded formulations indicated for *Vajikarana* like *Vrishyamashadi Pupalika* (CS.Ci.2-4.23), *Kurmadi Basti* (CS.Si.12.17), *Vajikarana Svayamguptadi Yoga* (SS.Ci. 26.33), *Vidaryavaleha* (AH.U.40.21), *Kamavardhak Gokshuradi Churna* (AH.U.40.34), *Rativardhan Yoga* (BP.U.1.25), *Ikshuradi Churna* (VS.84.65), *Mahakameshwara Modaka* (BR.74.232) and many more.

3. Ashmari Bhedana (Lithotryptic Action) - Along with some other drugs like *Gokshur*, it has been indicated for the treatment of *Ashmari* (urolithiasis). Some of the formulations containing *Ikshuraka* are *Gokshuradi Yoga* (CS.Ci.26.62), *Vatashmari Bhedaka Pan* (AH.Ci.11.21), *Panchmul Trunatmika* (BP.35.43), *Pashan bhedadi Churna* (BP.37.47), *Veertaradi tail-2* (BP.37.92), *Shvadanshtradi panaka* (CD.34.31), *Ashmari Bhedana Yoga* (BR.36.20).

4. Vataroga (Muculoskeletal Disorder) - Acharya Bhavprakash Nighantu has described the *ikshuraka* under *Guduchyadi Varga* for treatment of *Vataroga* (Muculoskeletal Disorder). Some other formulations which are indicated for *vatarogas* are *Kalyanaka lavana* (SS.Ci.4.32), *Mahanarayan tail* (BP.24.313), *Vruddhanarayan tail-1* (VM.22.326), *Gandhahasti prasarini tail* (VS.60.459). Sushruta Nighantu, Shodal Nighantu and Hridaya Deepak Nighantu also mentioned *Ikshuraka* in *vatarogas*.

5. Rasayana (Rejuvenation) - *Ikshuraka* Formulations such as *Vasishtokta Haritaki* (AH.Ci.3.136) and *Vridhdharu kalpa* (VS.83.437) are indicated as *Rasayana Karma*.

6. Gulma (Abdominal lump) - Formulations such as *Kalyanaka lavana* (SS.Ci.4.32), *Ksharavleha* (SS.U.42.41), *Arogya lavana* (30.47) are mentioned in *Gulma Rogadhikar*.

7. Pleeha roga (Splenomegaly) - Acharya Sushruta mentioned *Kalyanaka lavana* (SS.Ci.4.32) and *Kshar Prayoga* (SS.Ci.14.13). Other formulations such as *Kadali kshar tail* (VS.11.191), *Rohitkadi Vati* (BR.41.22), *Gudpippali* (BR.41.52), *Kadlyadi kshar tail* (BR.41.234) are also mentioned in indication of *Pleeha roga*.

8. Sarva Visha (Poisoning) - Acharya Sushruta mentioned *Ksharagada* in different types of poisoning.

9. Udara roga (Diseases of Abdomen) - Acharya Harita mentioned *Shuktyadi Kshar* (HS.26.39) administration in all types of diseases of abdomen.

10. Arsha (Piles), Arochaka (Tastelessness), Ajirna (Dyspepsia), Kasa (Cough), Krimi Roga (Worm infestation) - *Kalyanaka lavana* indicated in treatment of these disorders.

11. Agnimandya (Digestive Impairment) - Formulations such as *Kalyanaka lavana* (SS.Ci.4.32), *Vrihadagnimukha Churna* (CD.6.33 & BR.10.70) are indicated in digestive disorders.

12. Shoola (Pain) - Different classical texts indicated *Eranda dwadas kwath* (SS.U.42.113), *Palashadi Ghrita* (HS.7.57), *Veerataradi tail-2* (BP.37.92), *Eradamuladi Ghrita* (GN.23.74) in painful conditions.

13. Rakta Vikara (Disorders of Blood) - *Mutrarakta yonidoshaharam Ghritam* (SS.U.58.44), *Vrihatta Kushmandavaleha* (BP.9.63), *Amrutakhya lauha rasayana* (VS.45.174), *Svayamguptadi Churna* (VS.72.63), *Kushmandavleha* (BR.13.110).

14. Bandhyatva (Infertility) - *Mutrarakta yonidoshaharam Ghritam* (SS.U.58.44), *Svayamguptadi Churna* (BP.36.61), *Kshaudradya Ghrita* (VM.33.16) are indicated in infertility in various classical texts.

15. Yoni Dosha (Disorders of Female Genital Tract) - Formulations such as *Mutrarakta yonidoshaharam Ghritam* (SS.U.58.44), *Svayamguptadi Churna* (BP.36.64) are mentioned in different texts.

16. Vatarakta (Gout) - Acharya Bhavprakash indicated *Kokilakshamrut Kwath* with *pippali* (BP.29.55) which has potential to cure gout within 3 weeks. Similarly, other formulations like *Trivrutadi Kwath* (M.Chi.25.1), *Erandaadi Kwath* (BR.27.12), *Guduchi Ghrita-5* (BR.29.103),

Dhatrayadi Kwath (CD.23.15), *Amrutadya Ghrita* (BR.27.132 & VS.61.83), *Gandharwahastadi Kwath* (VS.61.52), *Kokilaksha + pippali Churna Kwath* (VS.61.53) also mentioned in treatment of Gout.

17. Pittaj Siroroga (Disease of Head due to Pitta) - Acharya Harita indicated *Kokilakshadi Kwath Paan or Lepa* (HS.40/17) in diseases of head.

18. Sukhpuvak Prasava (Easy Delivery) - Root of *Kokilaksha* is chewed with sugar and with the resultant juice the ear is filled. It helps in easy delivery. (VS.18.231)

19. Shotha (Inflammation) - *Ikshuraka* has been used as a constituent in various compounded formulations indicated for *Shotha*. Some other Formulations like *Kokilaksha Bhasma* (BR.42.32), *Apamargadi Putasweda* (BR.42.35), *Takra Mandur -2* (BR.42.121) are also indicated for the *Shotha Treatment*.

20. Prameha (Diabetes Mellitus) - *Karpuradi Gutika* (GN.1.484) mentioned in *Gadanigraha* for the treatment of Diabetes Mellitus.

21. Rajyakshma (Tuberculosis) - *Ikshuraka* has been mentioned in *Vrihatta Chandamruta Rasa* (BR.14.113) for the Tuberculosis treatment.

22. Medo roga (Obesity) - *Ikshuraka* seed mentioned in *Kushmandasava* under *Asavadhikara* (GN.1.298) for the treatment of Obesity.

23. Pandu (Anaemia) - *Panchamruta Lauha Mandura* (BR.12.56) *Anupana* used in Anaemia.

24. Updamsha (Syphilis) - *Ikshuraka* as a constituent used in *Rasa Guggulu* (BR.52.60) for the treatment of Syphilis.

25. Kushtha (Skin Disorder) - *Manjishthadi Kwath* (BR.54.69)

Pharmacological Activities

Hepatoprotective Activity[23] - Hepatoprotective potential of aqueous extract of whole plant of *Asteracantha longifolia*, was screened in hepatotoxicity induced by administration of CCl₄ in a dose of 0.5ml/kg in mice.

The plant extracts reduced alanine aminotransferase levels and increased glutathione level in pre-treated group for 4 days after the CCl₄ administration. The similar effect of aqueous plant extract was also observed in Paracetamol induced hepatotoxicity.

Results clearly indicate that *Asteracantha longifolia* aqueous extract has hepatoprotective potential against CCl₄ & Paracetamol induced hepatotoxicity.

Haemopoietic Activity[24] - The 95 percent ethanolic extract of aerial parts at 100 and 200 mg/kg i.p. doses showed haemopoietic activity in haloperidol (0.2 mg/kg ip. for 4 days) induced iron deficiency anaemia in albino rats. Administration of the extract for 4 days along with the haloperidol dose-dependently prevented the haloperidol-induced decrease in RBC and WBC counts, haematocrit value, haemoglobin content and levels of iron and protein in serum. Further, there was an increase in these parameters when the treatment was continued for the next 15 days.

Antidiabetic Activity[25] - *Asteracantha longifolia* ethanolic extract was tested for antidiabetic potential using rat model. Results of the study demonstrated that ethanolic extract of AL caused a significant ($p < 0.05$), dose dependent inhibition of glucose absorption and showed hypoglycemic effects in Long Evans rats weighing about 100-200 gm. *Asteracantha longifolia* ethanolic extract showed significant antidiabetic effect in a dose dependent manner.

Antitumour Activity[24] - *Asteracantha longifolia* hydroalcoholic extract was screened for antitumour activity in female albino rats bearing mammary tumours. Dimethylbenzene (a) anthracene (DMBA) was used to induce the tumor. Plant extract (300 mg/kg p.o.) showed significant antitumor activity. Tumor weight was reduced on administration of extract for 4 wks and the effect comparable with standard drug tamoxifen (50 µg/d). Immunohistochemical analysis of tumors revealed that it reduced the proportion of estrogen (ER) and progesterone (PR) receptor positive tumors.

Anti-infertility Activity[24] - The 95 percent ethanolic extract of the seeds (100, 150 and 200 mg/kg p.o.) showed significant aphrodisiac and spermatogenic activities in normal albino rats. The extract administration for 28 days, dose-dependently increased the mounting frequency and reduced the mount latency, post-ejaculatory latency and intromission latency. It also increased the sperm count, fructose content of seminal vesicles and weights of testes, prostate, seminal vesicles and epididymis along with increasing the body weight (Chauhan *et al.*, 2009).

It (50 and 100 mg/kg) produced significant increase in serum levels of luteinizing hormone (LH) and testosterone and insignificant increase in follicular stimulating hormone (FSH) indicating stimulation of hypothalamic-pituitary-gonadal axis by the extract.

Effects on Renal System[24]

Diuretics Activity - The alcoholic extract of the plant and its petroleum ether, chloroform, ethyl acetate and n-butanol fractions were screened at 200 mg/kg p.o. dose for diuretic activity in wistar albino rats. The alcoholic extract and its n-butanol fraction showed activity while others were devoid of any significant activity. The n-butanol fraction showed highest activity. It increased the urinary output and excretion of Na⁺ and K⁺ by 316, 140 and 177 per cent, respectively without affecting the excretion of Cl⁻ as compared to control. These effects of n-butanol fraction were comparable with those of the standard drug furosemide (10 mg/kg).

Nephroprotective Activity - The 95 per cent ethanolic extract of the plant at 50 and 250 mg/kg p.o. doses, protected the Sprague Dawley albino rats against gentamicin-induced nephrotoxicity when administered for 22 days. It decreased the serum creatinine and urea levels and lipid peroxidation in kidney along with increasing the activities of renal SOD and CAT and GSH content in a dose-dependent manner. Histopathological studies revealed that the plant extract inhibited the gentamicin-induced proximal tubular necrosis (Bibu *et al.*, 2010).

Anti-urolithiatic Activity - The methanolic extract of the aerial parts (250 and 500 mg/kg p.o. for 28 days) reduced the ethylene glycol-induced nephrolithiasis in male wistar albino rats in a dose-dependent manner. It prevented ethylene glycol-induced decrease in urinary volume and pH and urinary excretion of magnesium and increase in urinary excretion of calcium and oxalate. It decreased serum uric acid level and calcium and oxalate levels in kidney. However, its activity was lower than that of standard drug, cystone (750 mg/kg) (Ingale *et al.*, 2012).

Anti-inflammatory and analgesic activity[26] - The analgesic activity of ethanol extract of whole plant of *Asteracantha longifolia* was determined for its central and peripheral pharmacological actions using hotplate, formalin induced pain and acetic acid-induced writhing test in mice.

Anti-inflammatory effects were determined by ear swelling induced by croton oil, xylene-induced ear edema, leukocyte migration induced by carrageenan, cotton pellet-induced granuloma formation. Tramadol (10 mg/kg) and Ibuprofen (100 mg/kg) were used as reference analgesic agents. The crude ethanol extract showed a significant anti-inflammatory activity. The extract given by p.o. route, produced significant inhibition of abdominal constrictions caused by acetic acid and the extract also showed moderate analgesic activity on the hot plate pain threshold in mice.

Antibacterial and antifungal activity[27] - The antibacterial and antifungal activity of methanolic extract of *Asteracantha longifolia* has been evaluated against 4 Gram positive bacteria, 7 Gram negative bacteria and 7 fungi. Ciprofloxacin and fluconazole used as standards for bacteria and fungi, respectively. The extract showed varying degrees of antimicrobial activity with zone of inhibition ranging from 15.0 to 26.0 mm. *A. longifolia* demonstrated significant zone of inhibition against all experimental bacteria, namely, *B. cereus*, *B. megaterium*, *B. subtilis*, *S. aureus*, *E. coli*, *P. aeruginosa*, *S. paratyphi*, *S. typhi*, *Sh. dysenteriae*, *Sh. Sonnei* and *V. cholerae* and four fungi, namely, *A. niger*, *B. dermatitidis*, *Microsporum* spp. and *Trichophyton* spp. The MICs of the plant extract was found to be 31.25 µg/ml against *B. cereus*, *S. typhi*, *Sh. Sonnei*, *V. cholerae*, *A. niger* and *B. dermatitidis*. In the brine shrimp lethality bioassay, the LC₅₀ and LC₉₀ of *A. longifolia* were found to be 6.1 & 12.2 µg/ml, respectively. The methanolic extract of *Asteracantha longifolia* showed moderate to strong antimicrobial activity against selected bacteria & fungi species (Kewsar *et al.*, IJPSR, 2012)

Sedative Activity[24] - Crude petroleum ether extract of the roots at 80 mg/kg ip. dose, did not show any sedative-hypnotic activity in mice but potentiated the sedative-hypnotic action of chlorpromazine, diazepam, pentobarbitone and chlordiazepoxide. Pretreatment with the extract reduced the strychnine-induced convulsions and mortality by 50 per cent. (Mazumder *et al.*, 1999).

Toxicity[28] - Sub-acute toxicity study of 28-day duration was carried out in three different doses of 100 mg/kg, 250 mg/kg and 500 mg/kg orally. No significant variation in hematologic and biochemical parameters and in relative organ weight with doses of 100, 250 and 500 mg/kg body weight.

Histopathology showed the presence of slight necrosis in seminiferous tubules at dose of 500 mg/kg. It may be concluded that the alcoholic extract of *Asteracantha longifolia* seeds is safe for oral administration at low and moderate doses while high dose (500 mg/kg) is not absolutely free from toxic effects.

Discussion

As per *Ayurveda*, *Ikshuraka* balances *Vata* and *Pitta Dosh*, and due to its *Madhura Rasa*, *Snigdha* and *Pichhila Guna*, it nourishes *Shukra Dhatu* and promotes fertility and strength. Its *Mutravirechaka* property helps in clearing obstruction of urinary tract, while *Ashmaribhedaka Karma* helps in disintegrating urinary calculi, thereby restoring normal urinary flow. Experimental and clinical studies confirm its diuretic, nephroprotective, and antiurolithiatic actions, closely corresponding to its *Mutravirechaka* and *Ashmaribhedaka* roles in described in ancient texts of *Ayurveda*. Its antioxidant and hepatoprotective effects support its *Rasayana* potential by reducing oxidative stress and promoting tissue regeneration. Furthermore, its aphrodisiac and spermatogenic activity aligns with *Vrishya Karma* mentioned in *Ayurvedic* texts, improving testosterone levels, sperm count, and reproductive organ weight. Formulations such as *Ikshuradi Churna*, *Kokilakshadi Kwath*, and *Svayamguptadi Yoga* have been time-tested in these conditions. Additionally, the antidiabetic, anti-inflammatory, antibacterial, and haemopoietic effects of *Asteracantha longifolia* correlate with its classical indications in *Prameha*, *Shotha*, *Rakta Vikara* and *Pandu Roga*. Thus, a strong pharmacodynamic parallel can be drawn between its *Guna-Karma* (qualities and actions) and modern pharmacological outcomes. *Ikshuraka* is a multi-system tonic that is nutritious, restorative, and curative, according to both *Ayurvedic* and contemporary viewpoints. Scientific screening studies showing pharmacological activities provides scientific evidence traditional *Ayurvedic* belief that it has positive curative and restorative actions on various organs and organ systems.

Conclusion

From the review it is evident that *Ikshuraka*, botanically identifies as *Asteracantha longifolia* is very commonly used plant for therapeutic purposes in *Ayurveda*.

Various classical indications of the plant drug have been authenticated by modern pharmacological screening studies. Analysis of classical references reveals that the plant has been used for the treatment of ailments of almost all the body system in ancient texts of *Ayurveda*. Some of its classical indications like use of *Ikshuraka* in Musculoskeletal Disorders, Poisoning and Gout need further investigations. As the plant has been found to be safe for systemic use in toxicity screening studies, it may be used in the form of crude drug as well as in form of compounded formulations for therapeutic purposes.

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