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“CRITICAL REVIEW ON SCORPION POISONING W.S.R. TO VARIOUS ANCIENT AYURVEDIC TEXTS”**Dr. Kundan Meshram¹, Dr. Sanjay Nandedkar²**

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ABSTRACT:

In addition, the bite of a scorpion is a widespread and worldwide public health issue that is found to be connected with significant morbidity and mortality. It poses a risk to workers in the agricultural sector, particularly farmers, villages, migrant populations, and hunters, and it is especially prevalent in the agricultural sector. The annual number of incidents of scorpion stings in India is greater than 1.23 million, with approximately 32,250 of those cases having the potential to be lethal. This can be due to a number of obstacles that are present in the treatment of scorpion bites, such as inadequate health services, transportation facilities that are difficult and delayed, incorrect traditional beliefs, and delays in the administration of anti-scorpion venom, which ultimately results in a significant amount of mortality and morbidity. There are a number of pharmaceutical formulations that have been discussed by Ayurveda for the treatment of Vrishchika Damsha, also known as scorpion bite. Traditional practitioners of medicine make extensive use of these therapeutic herbs. A large number of references to therapeutic techniques and drugs that are discussed for the management of vrischikavisha may be found in Ayurvedic classics. Due to the fact that the information contained in these ancient classics is dispersed in a broad variety of places, it is necessary to investigate and discover the solutions. The purpose of this article is to make a modest attempt to highlight the many types of risk factors and treatment approaches that are detailed in these publications, as well as the specific symptoms that are associated with them.

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KEY WORDS:- Scorpion, Vrishchika, medicinal formulations.

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INTRODUCTION

Venomous stings from scorpions pose a significant threat to public health, particularly in rural territories of India. Scorpions, particularly those that belong to the family Buthidae, are among the most poisonous animals in the world. There are approximately 25 species that have venom that is capable of killing a human being, but the majority of species do not pose a significant threat to human life itself. There are in total 1988 species of scorpions that are known to exist, with India being home to 113 legitimate species belonging to 25 different genera and six different families. 1. *Mesobuthus tamulus* and *Palamneus swammerdami*—two of the 86 species of scorpions that can be found in India—are considered to be of significant medical relevance. 2. Regarding the treatment of scorpion stings, there are a variety of various options available. *Vrichikas* are numerous in nature, and as a result, the symptoms that are associated with each of them are distinct in nature. The treatment protocols that should be adopted for each *vrichika visha-damshas* must be specific according to the nature of the *vrichika*. Additionally, it is important to note that the majority of acharyas have described *vrishchikavisha* as being *vatolbana* in nature, while some have described it as being *vatapittolpana* in nature. Scorpion bites are known to cause excruciating pain, a burning feeling, swelling, and erythema, which are similar to the symptoms of *Vrishchika Damsha*, also known as scorpion sting, according to Ayurvedic medicine. A significant determinant in the decision to seek medical attention as soon as possible is the presence of excruciating pain at the location of the sting. According to the Ayurvedic Classics and Granthas, there are a number of external medicinal formulations that have been mentioned in order to treat acute symptoms. All of the many types of *vrishchikas*, as well as their signs and symptoms, consequences, and treatments, have been detailed by Acharyas in accordance with the severity of the condition. These topics will be further examined in the published review paper.

MODERN CONCEPT

A number of other regimens, including as the lytic cocktail, insulin, atropine, nifedipine, betablockers, and captopril, have been explored over the course of the past several years; however, none of these have been successful in significantly lowering death and morbidity rates. Even serotherapy has been a subject of discussion and controversy in relation to this contentious issue. 3)

In situations of a Scorpion bite, it is essential to provide urgent treatment; however, the patient is unable to receive treatment immediately due to a lack of transport facilities, and the Scorpion anti-venom that is used for treating Scorpion bites is not easily accessible in the hamlet. Anti-scorpion venom (ASV) is the only particular treatment that is now available for scorpion bites; nevertheless, the administration of this treatment has been a subject of dispute and controversy throughout the course of the past five years 4. The sole treatment option that is available for scorpion bites in this scenario is herbal treatment because these plants are widely used and can be obtained without much difficulty. Scorpion Venom scorpion venom is a cocktail of several neurotoxins, cardiotoxins, nephrotoxins, haemolytic toxins, nucleotides, amino acids, oligopeptides, phospholipase-A,

hyaluronidase, acetylcholine esterase, histamine, serotonin, 5- hydroxyptamine and proteins that inhibit protease, angiotensin's and succinate dehydrogenase. 5 Mechanisms of action of the venom of the scorpion A powerful sodium channel activator is found in the venom of the scorpion. 6. It causes a delay in the shutting of neuronal sodium channels, which leads to a "autonomic storm," which in turn causes a sudden influx of endogenous catecholamines into circulation, which in turn leads to transitory activation of the sympathetic and parasympathetic nervous systems. The symptoms of a scorpion bite The venom (sting) of a scorpion induces a significant release of neurotransmitters, which subsequently leads to a variety of clinical manifestations that are associated with envenomation injuries. 7 The symptoms of a scorpion bite include profuse perspiration, vomiting, increased salivation, bradycardia, priapism, cold extremities, or temporary hypertension, which is then followed by the development of severe cardiovascular manifestations such as hypotension, tachycardia, pulmonary oedema, tingling numbness, and restlessness. The risk of morbidity and mortality is increased as a consequence of acute refractory pulmonary oedema, cardiogenic shock, and failure of multiple organs. 8.

AYURVEDIC CONCEPT:

Acharyas have provided a comprehensive description of the physical characteristics of the snake, including its classification, numbers, signs and symptoms, the mode of action of the venom, complications, and management. Our Acharyas have provided a description of the numerous sorts of Vrishchika visha in the literature and textbooks that they provide. They are harmful to human beings and should be avoided. Therefore, the treatment is of utmost significance. The kita visha is the category that Vrishchika falls under in Ayurvedic medicine. Only the degraded mass of excreta, urine, sperm, eggs, or the carcass of snakes can have the ability to give birth to kita, which are insects. Vrishchika, often known as scorpion, poses a significant threat to the living body. The length of it is nearly three to seven inches. There are two distinct sections that make up the body of the scorpion. They have a total of eight legs, and their tail consists of six segments. There is a venom mechanism present in the last segment, which is referred to as the telson segment.

Synonyms:-

According to Raj Nighantu, Synonyms of Vri-shchika are⁹ -

1. Shooka keeta
2. Alidrona

Historical Review¹⁰

Charaka Samhita: Acharya Charaka has explained the Chikitsa (Treatment) of Vrishchika under 23rd chapter of Chikitsa Sthana.

Sushruta Samhita: Acharya Sushruta has explained in detail about Vrishchika under 8th chapter, Keeta Kalpa Adhyaya of Kalpa Sthana.

Harita Samhita: In Harita Samhita, 55th chapter of 3rd Sthana, Mantra Chikitsa has been mentioned for the management of Vrishchika Damsha.

Astanga Samgraha: Acharya Vriddha Vagbhata has elaborate the details of Vrishchika in

Keeta Visha Partisedha Adhyaya (43rd chapter) and Visha Opayogiya Adhyaya (48th chapter) of Uttartantra.

Astanga Hridaya: Acharya Vagbhata has also mentioned the context of Vrischika in 36th and 37th chapter of Uttartantra.

Prayoga Samucchaya: Prayoga Samucchaya has explained in detail about Vrischika, under Saptama Pariccheda, Vrischika Visha Chikitsa Adhyaya.

Kriya Kaumudi: Kriya Kaumudi has mentioned the context of Vrischika in Keeta visha Prakarana.

Origin of Vrischika¹¹

The Vrischika which are originated from

- Goshakrith (purified cow dung have Mandha visha (mild poison)
- Kashthe (wood) and eshtika (brick) have Madhyama visha (moderate poison)
- Sarpa (sloughed snakes or from other poisonous substance) are Teekshna visha (virulent)

General Symptoms of Bite¹²

In addition to causing locally significant pain (vedana), a burning sensation (daha), swelling (shotha), and redness at the site of biting, the majority of scorpions are neurotoxic in nature. The patient is experiencing the symptoms described above, and the pain is travelling upward from the location where the bite occurred. In accordance with the teachings of Acharya Vriddha Vagbhata, the bite of a venomous scorpion is analogous to fire. The agony initially proceeds in an upward direction, but it eventually becomes fixed at the location where the scorpion bit the victim. In addition to the excruciating pain and burning sensation that is present at the site of the bite, the bitten area takes on a dark, metallic appearance. Acharya Charaka has provided an explanation of the symptoms that are associated with pranahara and dooshi visha. There will be a burning sensation and bhednavat pida, which is a piercing agony, at the location of the bite, and the pain will proceed higher. The bite of a dooshi visha scorpion is comparable to the sense of fire. If you are bitten by a pranahara vrischika, you will have a loss of sensation in your eyes, nose, tongue, and flesh that has been cut and falls from the location of the bite. Additionally, you will experience an enormous amount of pain at the site of the bite. All of these symptoms ultimately result in the death of human souls. There is another name for Pranahara visha, which is asadhya¹³.

Classification of Vrischika¹⁴**I. Based on Visha Prabhava**

Samhitas	Types	Vrischika
Charaka Samhita (Chikitsasthana) ¹⁵	2 types	<ul style="list-style-type: none"> ▪ Dooshivishaja Vrischika ▪ Prana Haram / Asadhyam
Sushruta Samhita (Kalpasthana) ¹⁶	3 types	<ul style="list-style-type: none"> ▪ Mahavisha - 15 types ▪ Madhya Visha - 3 types ▪ Manda Visha - 12 types
Astanga Samgraha (Uttartantra)	3 types	<ul style="list-style-type: none"> ▪ Mahavisha - Powerful Poison ▪ Madhya Visha - Moderate Poison ▪ Manda Visha - Mild poison
Astanga Hridaya (Uttartantra)	3 types	<ul style="list-style-type: none"> ▪ Mahavisha - Powerful Poison ▪ Madhya Visha - Moderate Poison ▪ Manda Visha - Mild poison
Prayoga Samucchaya	3 types	<ul style="list-style-type: none"> ▪ Mahavisha - Powerful Poison ▪ Madhya Visha - Moderate Poison ▪ Manda Visha - Mild poison
Kriya Kaumudi	2 types	<ul style="list-style-type: none"> ▪ Ugra Visha ▪ Alpa Veerya Visha

II. Based on Dosha predominance

Samhitas	Types	Vrischika
Prayoga Samucchaya ¹⁷	4 types	<ul style="list-style-type: none"> ▪ Vata Pradhana ▪ Pitta Pradhana ▪ Kapha Pradhana ▪ Sannipatika
Kriya Kaumudi	3 types	<ul style="list-style-type: none"> ▪ Vayavya - 18 ▪ Agneya - 24 ▪ Soumya - 13 ▪ Sankrina - 12
Gaya Das ¹⁸	3 types	<ul style="list-style-type: none"> ▪ Manda - 10 ▪ Madhyama - 3 ▪ Pranahara - 13

Morphological Features¹⁹

Acharyas	Maha Visha Vrischika	Madhya Visha Vrischika	Manda Visha Vrischika
Sushruta	White or variegated colours, brown or reddish in body, belly being red white, reddish blue, yellowish red, bluish yellow, pink, bluish white, red or grey, having 2 joints in tail, having different shapes and colours are terrifying.	Red yellow or brown colour in body, smoky in belly, three joints in tail	Colours such as black, blue, brown, white and colour like cow's urine, coarse, blue-black, yellow or smoky, having hair on their belly resembling algae, red or white having more number of joints in the tail than others.
Astanga Samgraha	Reddish brown, spotted variegated colour, resembles blood or fire, have only one joint, belly is reddish black or white in colour.	Smoke coloured abdomen, 3 joints, brown or reddish brown in colour.	Yellow white, blue, dry, rough, brown or dark brown in colour, hairs on the body, many joints belly being reddish or white.
Astanga Hridaya	Appear like fire, have one joint; belly is red black or white.	Smoke coloured abdomen, 3 joints, brown, slight red, reddish brown body spotted, variegated and resembling blood.	Yellow white-blue many colours of black, dry, hairy has many joints, abdomen red and pale.
Prayoga Samuchchaya	Pingala Varna (resembles fire), Na Na Varna (various colour) 'Reddish, having 1 or 2 joints in tail, combinaton of red, white & black colour abdomen.	Brass colour, reddish, copper colour abdomen, tail have 3 joints.	Yellowish (Haridra Varna), white, blackish and dark colour, Na Na Varna (various colour), Predominance of Ruksha, having more hairs, many joints in tail (Asangyam), white colour abdomen.
Kriya Kaumudi	Copper colour, black, white or reddish colour stomach, possess various colour (Aneka Varna), resembles fire (Agnitulya Prakasha), having 2 joints in tail.	Reddish or bluish body, stomach greyish, having 3 joints in tail.	Dark, yellow, light white colour, stomach whitish colour, rough body (Ruksha Deha), having 7 joints in tail.

Types of Vrischika Visha :**I. Based on Varna (Colour) & Lakshanas²⁰**

SN	Vrischika Bheda	Varna	Samanya Lakshanas
1.	Manda Visha Vrischika	▪ Krishna ▪ Shyava ▪ Karbura ▪ Pandu ▪ Gomutra ▪ Karkasha ▪ Mechaka ▪ Peeta ▪ Dhoom ▪ Romayukta ▪ Shadvala ▪ Rakta	▪ Vedana ▪ Kampa ▪ Gatra Stambha ▪ Krishna Rakta ▪ Daha ▪ Sotha ▪ Jwara ▪ Sweda
2.	Madhya Visha Vrischika	▪ Rakta ▪ Peeta	▪ Jihva Sotha ▪ Bhojanasya Abarodha ▪ Murcha
3.	Maha Visha Vrischika	▪ Shweta ▪ Chitra ▪ Shyamala ▪ Lohita ▪ Rakta Shweta ▪ Rakta Neela ▪ Peeta Rakta ▪ Neela Peeta ▪ Neela Shukla ▪ Rakta Vabru	▪ Sarpa Visha Vega ▪ Sphota ▪ Daha ▪ Jwara ▪ Manovibhram

II. Based on Dosha predominance & Damsha Lakshana (As per Kriya Kaumudi)²¹

SN	Type	Damsha Lakshana
1.	Vayavya	Severe pain, Pricking pain
2.	Agneya	Burning sensation, redness, slight oedema, Kharjura Varna.
3.	Soumya	Continuous thick blood discharge, Alpa Vedana, Udumbara Varna
4.	Sankirna	All type of symptoms are seen

III. Based on Dhatugata Damsha Lakshana (As per Prayoga Samucchaya & Kriya Kaumudi)²²

SN	Dhatu	Prayoga Samucchaya	Kriya Kaumudi
1.	Twak	Severe pain	Pricking pain, vomiting, delirium, convulsion
2.	Rakta	Severe burning sensation	All above + fatigue, burning sensation, Atisara, Jwara
3.	Mamsa	Hidhma, Oedema	Granthi all over body
4.	Meda	Greeva bhanga	Hidhma, Galasosha
5.	Asthi	Jwara	Jwara
6.	Majja	Manasantapa, Dukha	Vyasana Manasantapa
7.	Shukra	Rakta netra, Death	Rakta Netra, Death

IV. As per Dosha predominance (As per Ayurvedic texts)²³

SN	Samhita	Dosha predominance
1.	Charaka Samhita	Vataolbana
2.	Sushruta Samhita	Did not mention specific Dosha predominance for Vrishchika, mentions VataKapha predominance of Keeta Visha
3.	Astanga Hridaya	Vataolbana
4.	Astanga Samgraha	Vataolbana
5.	Prayoga Samucchaya	Mostly Vata Pitta predominance, very few are Kapha predominance
6.	Kriya Kaumudi	Mostly Vata Pitta predominance

Sadhya and Asadhya Lakshana:²⁴

Acharyas	Sadhya Lakshana	Asadhya Lakshana
Astanga Samgraha	<ul style="list-style-type: none"> ▪ Stambha Sopha Sa (Loss of movement of penis) ▪ Drishta Romatam (Horripilation) ▪ Sitambu Seka Anganam Eba (Feeling as though cold water is sprinkled all over the body) 	-
Charaka Samhita	-	<ul style="list-style-type: none"> ▪ Drig, Ghrana, Nasa Na Upahata Nara (Patient loses his power of vision, smell & taste) ▪ Muscle tissue gets sloughed and falls out (Mamsai Patati). ▪ Excessive pain (Atyartha Vedana) ▪ Succumbs to death

Treatment:^{25,26}**Samanya Chikitsa:**

Acharya Charaka has explained the general treatment of Vrishchika visha is Swedana (sudation), Abhyanga with Ghrita and Sandhava, Parisheka (irrigation), and food along with ghrita.

According to Acharya Sushruta, the treatment of Ugra and Madhyama types of Vrishchika should be done similarly to Sarpadashta (snake bite). The site of the sting should be cleaned properly, and then Swedana should be done. Pratisarana should be done by Haridra,

Saindhava Lavana, Trikatu, and Churna of Shirisha phala and pushpa.

According to Acharya Vagbhata, the general management of Vrischika Visha includes Seka, Upanaha, Lepa, and various yogas.

Vishesh Chikitsa:

Seka²⁷: The site of scorpion sting should be immediately bathed with Chakra Taila or Taila prepared by Vidargandha or Ghee mixed with Saindhava Lavana or Milk added with Saindhava Lavana or fermented luke warm rice water.

Upanaha²⁸: It is recommended that the paste of Ajaji, which has been fried in ghee and includes Saindhava Lavana, be applied as a heated poultice, also known as Upanaha.

Lepa ²⁹

1. Jirakadi Lepa³⁰: It is possible to alleviate Vrischika Visha and pain by applying a heated paste made of Jiraka that has been combined with ghee, honey, and Saindhava.

2. Ajakshiradi Lepa³¹: Lepa that has been made by combining equal amounts of Sirisha Phala and Pippali and then processing it in Ajakshir should be applied to the surface of the affected area.

3. Karpaspatradi Yoga³²: It is recommended that karpasa be applied to the scorpion bite after being rubbed into a paste with the addition of ghee.

4. Ullipashan Lepa³³: After being ground into a thin paste, Ullipashan (Arsenic) and Nimbu Swaras are administered to the area where the bite occurred.

5. Kshirivrikshadi Lepa: Application of paste of bark of Kshirivriksha after the patient has undergone Shodhana therapy destroys the poison of Vrischika.

6. Mukta Lepa: To alleviate swelling, pricking discomfort, burning feeling, and fever, the most effective treatment is the use of paste made from Mukta.

7. Hingu-Haritala Lepa: Pill prepared with Hingu, Haritala, along with Matulunga Swaras can be used for application on the bite and Anjana is best to remove the poison of Vrischika.

8. Palasha-Arka Kshira Lepa: After being crushed into a paste with the milky sap of Arka (Arka Kshira), the seeds of Palasha are then applied to the area where the bite occurred.

9. Jayapala Lepa: Through the addition of water, the seeds of Jayapala are crushed into a fine paste, and then they are applied to the wound.

10. Karanjadi Lepa: Karanja, Arjuna, Shelu, Katabhya, Kutaja, Sirisha Pushpa macerated with Mastu is paste to be applied on the site of bite.

Formulations used in Vrischik Visha:

I. According to Ashtang Hridayam:³⁴

1. Dashanga Agada: It is recommended that Vacha, Hingu, Vidanga, Saindhava, Gajapippali, Patha, Prativisha, and Vyosa all be consumed in equal quantities and then transformed into

Kalka by adding water and that it be administered internally.

2. Manasiladi Gutika: It is recommended that equal amounts of Suddha Manasila, Karanja Bija, Gambhari Bija, and Kustha be consumed before being combined and formulated into tablets. This medication is taken orally and then applied topically as Lepa to the area where the bite occurred.

3. Paravatadi Agada: It is recommended that the ideal remedy for Vrischika Visha be a combination of Paravata Sakrit, Pathya, Tagara, and Vishwabhesaja, together with the juice of Bijapura.

4. Nagaradi Agada: This Agada, when combined with Bijapuraka rasa, which is comprised of Nagara, Griha Kapota Purisha, Haritala, and Saindhava, rapidly eliminates the poison that the Vrischika possesses.

5. Sirishadi Agada: The poison of Keeta, Sarpa, Loota, and Vrischika is eliminated by this Agada, which is made by soaking and macerating the seeds of Sirisha in the Arka Kshira for three times. After that, the seeds are combined with the powder of Pippali.

6. Bilwadi Gutika: The roots of Bilwa, the blooms of Surasa, the fruits of Karanja, Nata, Surahavam, Phalatrika, Vyosa, and Nisa Dwaya (Haridra and Daruharidra) were all macerated in goat's urine and then turned into a pleasant paste. The poisons of Vrischika, Loota, Sarpa, and Mooshika, among others, can be cured with this medicine, which can be used as Anjana, Pana, or Nasya.

II. According to Kriya Kaumudi³⁵

1. Lashuna, Maricha, Hingu, Sunthi, Tulsi leaves are taken and Bhavana with Arka Kshira and Gutika is prepared for external application.

2. Following the completion of Manasila, Sirisa Bija, Kumkum, and Kustha, Gutika is prepared for the administration of the internal affairs.

3. Dhara Yoga³⁷: Following the preparation of Cavarkaram and Saindhava into powder form and the addition of Tandulodaka, Dhara should be performed in a condition that is lukewarm.

4. Vaca, Hingu, Saindhava, Gajapippali, Patha, Vyosa, Vidanga, Ativisha is indicated for Pana.

III. According to Prayogasamucchaya³⁸

1. When performing Dhara Yoga, it is recommended to do it in a lukewarm condition with Ghrita and Saindhava.

2. The ajamoda should be fried with the ghrita, then formed into a paste, and then Saindhava should be added to it. One should apply paste to the area where the bite occurred and then bind it. It is recommended that Swedana Karma be performed after that, and soon after that,

Raktamokshana should be performed without delay. Following this, Haridra, Saindhava, Sunthi, Maricha, Pippali, Sirisha Bija, and Pushpa should all be consumed in the same quantity and then ground into a powder. sprinkled over the area where the bite occurred.

3. Both Trivrit and Tandulodaka ought to be combined with Ghrita in order to produce Pana.

4. Following Vamanadi Karma, a paste produced from the bark of the Nalpamara tree is applied to the area where the bite occurred.

IV. According to Visha Vaidhya Jyotsnika ³⁹

- The typical therapy for poisoning caused by scorpions To begin, bloodletting must be performed using Sringa (Cow's horn), jalooka (Leech), and other similar substances. Subsequently, oral consumption (paana) and nasal administration (nasya) of Aswagandha (Withania somnifera) and Karanja (Pongamia glabra) must be performed without delay.
- Dhara, which is the practice of continuously pouring liquids in a stream, should be performed over the site of the bite while the temperature is manageable. This should be done with buttermilk that has been boiled and ground with tamarind (Tamarindus indicus), leaves of nimba (Azadirachta indica), and mulaku (Capsicum annulare).
- Saindhava (Rock salt) mixed with the swarasa of Karanja (Pongamia glabra), Tintrini (Tamarindus indicus) and leaves of Karaskara (Strychnus nuxvomica) to be applied over each eyelid as Pindi.
- All forms of Scorpion poisoning can be alleviated by applying the swarasa of Karanja (Pongamia glabra) immediately after it has been squeezed by the hands and injected into the eyes, nose, mouth, and the spot where the Scorpion bit the victim. In addition, tamabola, also known as piper betel, and hingu, also known as Ferula asafoetida, can be utilised in a manner that is analogous.
- **Dhoopas (fumes) which relieves Scorpion poisoning:** Fumes with the feathers of chicks, Saindhava (Rock salt) and paste of Tila (Sesamum indicum); Leaves of Nimba (Azadirachta indica), Nisa (Curcuma longa), Nara kesa (human scalp hair), umi (husk), leaves of Snuhi (Euphorbia nerifolia), leaves of Palm (Borassus glabellifer), Uzhinja (Cardiospermum halicacabum) Darvi (Coccinium fenestratum) and Ramatha (Ferula asafoetida) relieve the effect of scorpion sting.

Commonly used drugs and its properties

Hingu (Ferula narthex): Hingu has Tikta (bitter), Katu Rasa (pungent), Tikсна (sharp), Laghu (light) Guna, Ushna (hot potency) Veerya, Katu Vipaka, Pacana, Rucikara (appetiser), and Krimighna Karma (anti-microbial). It is known to have anti-inflammatory, anti-viral, anti-mutagenic, and antifungal actions. It is used in the treatment of asthma, gastro-intestinal disorders, and intestinal parasites.⁴⁰

Tambula (Piper betle): It has Tikta (bitter), Kashaya (astringent) Rasa; Laghu (light)

Tikshna Guna (sharp); Ushna Virya (hot potency); Katu Vipaka; Alleviates Kapha, improves taste, wards off bad smell of the mouth, provides good complexion and appearance, removes the waste/dirt of the lower jaw and teeth, cleanses the tongue, mitigates excess salivation, and cures diseases of the throat. ⁴¹ It has anti-fertility, anti-microbial, gastoprotective, immunomodulatory, hepatoprotective, cholinomimetic, anti-oxidant, anti-diabetic, and radioprotective activity. ⁴²

Tintrini (Tamarind): It has Amla Rasa (sour); Guru; Ruksha Guna (heavy and dry); Ushna Virya (hot potency); Amla Vipaka. ³⁴ It is known to have anti-diabetic activity, antimicrobial activity, anti-venom activity, antioxidant activity, antimalarial activity, hepatoprotective activity, anti-asthmatic activity, laxative activity, and anti-hyperlipidemic activity. ⁴³

Takra (Buttermilk): Tridoshashghna (alleviates all dosha), Vata-Kapha Pradhana conditions, Grahani (Sprue), Arsha (Piles), Udara (Ascites), Sthaulya (Obesity), Prameha (Diabetes), Shotha (Swelling), Complication of Ghrita (Ghee), Tail (Oil) & Garavisha (Low Potency Poison). ⁴⁴

Saindhava lavana: It has Lavana Rasa (salty), Laghu (light), Snigdha (unctuous), Tikshna Guna (sharp), Sheeta Virya (cold potency), Tridoshashamaka (alleviates all dosha), Agnideepana (increases agni), Pachana (digestive), Ruchya (appetiser), Netriya (beneficial for eyes), Hridya (cardiac toni), and Vrishya (aphrodisiac) properties. ⁴⁵

Nimba (Azadirachta indica): Tikta kashaya rasa, which is bitter and astringent, laghu ruksha guna, which is light and dry in nature, katu vipaka, and sheeta veerya, which has cold potency are all in its composition. Used in the treatment of krimi, which is a microbial infection; vrana, which is a wound; kushta, which is a skin condition; and so on. ⁴⁶

Ashwagandha (Withania somnifera): It has Katu (pungent) tikta (bitter) rasa, snigdha laghu guna (unctuous and light), katu vipaka, ushna veerya (hot potency), and vatakapahara (alleviates vata and kapha). ⁴⁷

Karanja (Pongamia pinnata): Tikta katu rasa, which is bitter and pungent, laghu teekshna guna, which is light and sharp in nature, katu vipaka, ushna veerya, which is hot in potency, and kapha vatahara, which alleviates both kapha and vata, are all the characteristics that it possesses. Pile syndrome (arsha), worm infestation (krimi), abdominal tumour (gulmahara), and skin illnesses (kushtaghna) are all indications of this condition. ⁽⁴⁸⁾

Haridra (Curcuma longa): Katu, Tikta Rasa; Ruksha, Laghu Guna; Ushna Veerya; Katu Vipaka; Kusthaghna (preventing skin diseases); and Vishaghna (protecting against harmful substances) are the karma that it possesses. It has phyto-constituents such as curcumin, curcuminoids, and other similar compounds. Among the pharmacological activities that Haridra possesses are anti-inflammatory, anti-oxidant, anti-bacterial, hepato-protective, expectorant, anti-cancerous, anti-mutagenic, and free-radical scavenging properties. ^{49th}

Upadravas (Complications) of Vrishchika Visha⁵⁰

Ayurvedic texts like Prayoga Samuchchaya and Kriya Kaumudi have explained about the upadrava of vrishchika visha, which may appear due to the bite of ugravisha vrishchika. These are the complications:

- Asahyavedana (severe pain)
- Shotha (swelling)
- Shwasa (breathlessness)
- Trishna (thirst)
- Moha and Pralapa (delirium)

Upadrava Chikitsa

1. **Lepa** - Churna of Vibhitaki, Haridra, Pippali, Manjistha, Maricha, and Visha should be ground in the swarasa of Brihati, and it should be applied in the form of lepa.
2. **Pana** – Dadhi and Ghrita should be taken in the form of pana.
3. **Anjana** – Taking Karanja, Tintidika, Saindhava, and Karaskarapatra swarasa in the form of anjana is the recommended method of consumption.

DISCUSSION

Scorpion sting case fatality rate 3-22% was reported in India. Scorpion venom symptoms are mostly classified into two groups. Local and systemic, in local- swelling, sweating, and radiating pain along the involved dermatome. In systemic manifestations, vomiting, hypersalivation, midriasis, priapism, and hypotension are sine. Pulmonary oedema is a common cause of fatality. Scorpion anti-venom is one of the lines of treatment in India, though it is a specific antidote to venom action, but in the case of mesobuthus tamulus, since antivenin does not prevent or reverse the cardiovascular morbidity. So it is time to evaluate the anti-venom activity of ayurvedic medicinal plants. Since ancient times, many herbs have been used in the treatment of scorpion bite, and it is also scientifically proven. There are so many plants that have therapeutic value in the scorpion bite treatment. According to Dosha, Acharyas have mentioned several Dravyas and Yogas in the form of Pana, Lepa, Dhupana, Mantra Chikitsa, etc. for the treatment of Vrishchika Damsha.

CONCLUSION

The observation by the Acharyas can help us to manage the treatment of Vrishchika visha. Though in this article efforts have been made to compile the various types of Vrishchika, their classification, features to identify the various Vrishchikas, their clinical manifestation, and treatment. Further studies using modern techniques must be proceeded to establish the facts that are explained in our ancient literature.

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