A CRITICAL REVIEW ON KEETA VISHA: AN AYURVEDIC APPROACH
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ABSTRACT
Indian system of medicine plays an important part in health care system all over India. Ayurveda is an ancient Indian system of medicine having eight important branches. Agad tantra is among one of them which deals with toxicological conditions and their management. Sage Susruta in Kalpashaana of his work Susruta Samhita, and Sage Vaagbhata in Uttaratantra of his work Ashtaanga Hrdaya, and in other classics and regional texts have narrated regarding the origin of Visha and Keeta Visha. There are several types of Keeta Visha described. Among animal poisoning, Acharayas have described different creatures (Sarpa, Keeta, and Luta) responsible for life threatening situations. The importance of Keeta Visha is more because it causes severe manifestations in the human being, even death also. Acharya Suhsruta described Keeta Visha under Jangama Visha and explained 67 varieties of Keeta under 4 groups. According to its variety diagnosis and treatment of Keeta Visha is found to be very difficult because these varieties are not yet correctly identified and besides, regional variations of these Keetas manifests very differently.

INTRODUCTION
Keeta in Samhitas
According to Acharya Charka, insects (Keetas) are also called because they are procreated from the Keetas or waste products like stool and urine of the snakes.1 According to Vaachaspatya, it is defined that ‘Krimibhyah Sthoole Kshudrajantu Bhede’ i.e., Keeta is a variety of Krimi with macroscopic body. Krimis are animate things, which use their individual legs independently for movements. Acharya Sushruta has described Keeta in his treatise after the chapters on snakes (Sarpadashtvishavigyaniya) and rodents (Mooshikakalpa). According to definitions, these may or may not be seen with naked eye. Therefore, they can even be interpreted as insects, worms and even microbes. The Paada may be legs, flagella or cilia; it can even be a part of single cell itself. When considering unicellular animals; here the character of shifting with respect to place is making them to be included under Jangama since Jangama included under live beings (Cetana Dravya); Acharyas may know that this minute entities also can be included under living. Keetas are generally accepted as type of Krmi, which can be visualized by naked eye (Sthoolay).

Origin of Keeta
Keeta are born from the putrefied urine, feces, semen, egg, and cadaver of snakes.2 According to Acharya Sushruta the origin of Keeta is said to be from Sarpa, they are described in the continuity. Their formation is alleged as putrefaction of ‘Shukra-Vid-Mutra-Pooti-Und-Sambhava’. Accordingly, Keeta are of four types and according to their Prakruti and the symptoms they produce, they are called as Vayavya, Aagneya, Ambu and Sarva-Dosha. All in all, the Keeta are 67. Since they are of myriad types and their habitat is open with the humans, it causes frequent stinging cases, and anaphylactic reactions too, in a few people.3-4

Classification of Keeta (As Per the Dosha):
According to Acharya Sushruta:-

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• Vaatika
• Paitika
• Shaleshmarka
• Sannipataja

According to Acharya Vagbhatta:-
• Vatolavana
• Pittolavana
• Kapholavana
• Sannipatolavana

According to Acharya Charka:-
• Dushivisha Keeta
• Pranhara Keeta

Types of Keeta:
1. Vaatika - 18
2. Paitika - 24
3. Shaleshmarka - 13
4. Sannipataja - 12

Most of the insects or Keeta are neurotoxic. Some are vasculotoxic and some causes allergies. Spiders are more vasculotoxic and causes severe inflammatory reactions. Hence it is said to cause Pitta Kaphaja Vikaras. Scorpions are more neurotoxic and cause severe neurological reactions, hence it is said to be Vaata Kopna. So their poisonous effects are stated in detail. All the other insects cause mild poisonous reactions. They are practically, mild form of neurotoxic, vasculutoxic and allergic.

According to Acharya Vaagbhata, the four types of insects (Keetas) are as follows: (Table: 1)

<table>
<thead>
<tr>
<th>Vaataja</th>
<th>Pittaja</th>
<th>Kaphaja</th>
<th>Sannipataja</th>
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</thead>
<tbody>
<tr>
<td>Kumbheenasra</td>
<td>Kaundilyaka</td>
<td>Vissvambhara</td>
<td>Tunggeenaasa</td>
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<tr>
<td>Tundikeri</td>
<td>Kanabhaka</td>
<td>Panca sukla</td>
<td>Cipilaka</td>
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<td>Srngi</td>
<td>Varaati</td>
<td>Panca-krsna</td>
<td>Taalaka</td>
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<td>Sata kuleeraja</td>
<td>Patra vrscika</td>
<td>Kokila</td>
<td>Vaahaka</td>
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<tr>
<td>Ucchitanga</td>
<td>Vinaasika</td>
<td>Shtairyaka</td>
<td>Koshtagoaari</td>
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<td>Agni naama</td>
<td>Braahmanika</td>
<td>Pracalaaka</td>
<td>Krmikara</td>
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<tr>
<td>Cicchitaanga</td>
<td>Bindula</td>
<td>Vatabha</td>
<td>Mandala</td>
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<tr>
<td>Mayoorka</td>
<td>Bhraamara</td>
<td>Kitibha</td>
<td>Tunda naabha</td>
</tr>
</tbody>
</table>

According to Acharya Sushruta the following insects are mentioned according to Dosha predominance: (Table: 2)

<table>
<thead>
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<td>Mayoorka</td>
<td>Bhraamara</td>
<td>Kitibha</td>
<td>Tunda naabha</td>
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<tr>
<td>Abheeraaji</td>
<td>Baahyaki</td>
<td>Gardhabaka</td>
<td>Sarshapika</td>
</tr>
<tr>
<td>Oorabhaka</td>
<td>Picchita</td>
<td>Soocimukha</td>
<td>Valguli</td>
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<tr>
<td>Aavarta</td>
<td>Kumbhi</td>
<td>Krshnagodha</td>
<td>Sambuka</td>
</tr>
<tr>
<td>Saarikaa</td>
<td>Varcha keeta</td>
<td>Kaasaaya vaasika</td>
<td>Agni keeta</td>
</tr>
</tbody>
</table>
Other insect (Keetas) Mentioned In Sushruta Samhita are:

1. Wasp (Kanabha)
2. A kind of flying insects (Trikantaka)
3. Chameleon (Krikalaasa)
4. Frog (Dardura)
5. Fish (Matsya)
6. Scorpion like creature (Visvambhara)
7. Centipede (Ucchitinga)
8. House lizard (Ghrha godhika)
9. Mosquito (Masaaka)
10. Bee (Maakshika)
11. Ant (Pipeelika)
12. Scorpion (Vrscika) etc.

Table showing insects described by various Ayurvedic texts in Keeta Visha Prakarana: (Table: 3)

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<td>Kanabha</td>
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<td>Trikantaka</td>
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<td>Krikalaasa</td>
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<td>Matsya</td>
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According To Kriyakoumudi:

Some more types of Keeta are mentioned they are as follows:-

Brahmanik (Arana) Teratta
Tottarotti Njandu (crab)
Vettalan Karimbada
Koora (Americana periplanata)

Incurable Keeta:

According to Sushruta, the following are Keeta whose bite is incurable:-

Godheraka Shalika Svetha
Agniprabha Brakuti Kotika

Symptoms of Bites of Visha Keeta in General:

According to Acharya Charka insects belonging to mild chronic (Dooshi Visha) category cause red, white, black or brownish black coloration of the part of the body, which is bitten, and the area becomes covered with pimples. The patient suffers from itching and burning sensation, erysipelas, suppuration and sloughing. The bites of the insects belong to the fatal (Praanahara) category produces expanding edema, as it happens in snakebite, associated with strong odor and bleeding. The patient suffers from pain, heaviness of the eyes, fainting and dyspnoea. The patient afflicted with bite of insects
causing chronic poisoning (Dooshi Visha) suffers from intense thirst and anorexia.11

According to Acharya Sushruta the poisonous Keeta cause Jawara, Angamarda, Romanch, Chhardi, Atisara, Trishana, Daha, Murchha, Jrimbha, Kampanna, Swasa, Hikka, Atisheeta, Shopha, Mandala, Dadru, Karnika, Visarpa, Kitibha etc.12 Acharya Vagbhatta said that in all types of Keeta Damsha Karrika, Sopha, Jwara, Kandu and Arochaka will be prominent.13

**Keeta Visha - Dosha Relationship**

Poison of insects (Keeta) has predominance of Vaata –Pitta that of wasp and mouse has predominance of Kapha that of scorpion and centipede probably has predominance of Vaata. Insects (Keeta) are of four kinds depending upon the Dosha predominance, three with the features of individual doshas and the fourth with the features of all of them together. When bitten by insects (Keeta) with the predominance of Vaayu (Vaata) pricking and pain are greatly increased; when bitten by Pitta predominant insects, there is less of exudation, but more of burning sensation, redness, spreading and appears like a ripe fruit of coffee (Peelu) or Kharjoora (Phoenix dactilifera); when bitten by Kapha predominant insects, there is mild pain and the swelling appears like a ripe fruit of Udumbara (Ficus glomerata). When bitten by those of all the doshas, there is copious exudation, presence of all the symptoms and such cases are to be rejected.14

In Vaitika Visha heart pain, pain in joints and bones, tremors, dyspea, colour of the skin become black, and stiffness like symptoms occur. In Paityka Visha heart burn, loss of sensation, bitterness of mouth, muscle fatigue, tenderness of tissues following red and yellow colour like symptoms are prominent. The symptoms prominent in Kaphaja Visha are Yamana, Arochaka, Peanus, coldness, sweetness of mouth, salivation etc. (As. Sa. 37/17)

**Treatment Principle of Keeta Damsha:**

Vitiation of Doshas is to be understood from the symptoms present and treatment should be with drugs that have opposing properties of the Doshas deranged. (As. Hr. U. 37)

**Treatment of (Keeta Visha) According To Dosha:**

In case of poison predominant with Vaata, application of Tila (sesamum seeds) on the site, anointing with oil, fomentation either by steam pipe or ball of cooked rice and nourishing foods are the treatments ideally suited. Poison predominant with Pitta should be controlled with cold irrigation and cold potency topical applications. Poison predominant with Kapha should be treated with scraping, incising fomentation and administration of emetics.15

The person who was bitten by the Visha Keeta, after doing Sansodhana, Lepa the bark of Kshirvrikshas (Vata, Pippal, Gullara, Pakkar, Paras Pippal) should be used for treatment of poisoning. All types of inflammation, burning sensation, pain, fever, will be subsides by the application of Pearl.16

**CONCLUSION**

By studying above it seems that spider, scorpion, mosquitoes, flies, fleas, ants, lizards etc are included under Keetas. Their poisons cause more severe manifestations in man. The treatment is also more important. Besides this, several small creature seen in our surroundings, called Keetas, cause certain poisonous illness to man. Their number and name not fully identified. Susrutha described 67 types of Keetas which are not possible to identify presently. They are seen from the place where decaying substances and creatures are seen.

**REFERENCES**