

REVIEW OF ALARKA VISHA W.S.R. TO RABIES

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ABSTRACT

Alarka is a disease of sangyavaha strotas in ayurved. Alarka visha is correlated with Rabies according to modern science. Rabies is also an acute, highly fatal viral disease of central nervous system caused by Lyssavirus type 1. It is a zoonotic disease of warm blooded animals such as dogs, cats, jackals and wolves. It is transmitted to man usually by bites or licks of rabid animals. Incurable features include, image of bitten animal observed by the affected person water and in mirror in ayurved term i.e Hydrophobia in which it is stand that jalasantrasa sight, touch and sound of water aggravates the symptoms. Treatment of dog bite is described by Sushruta acharya. It includes pouring hot ghee on bite site, drinking of old ghee, Purgation, Propitiatory bath, Sanshodhana (putrifiactory therapies), Dhatura- Sharpunkha yoga, various agadas (anti poisonous medicine) for ingestion as well as for external application.

KEYWORDS: Rabies, Alarkavisha, Hydrophobia, Ayurvedic treatment(Jalasantras) etc.

INTRODUCTION

According to the modern view Rabies is an acute, highly fatal viral disease of central nervous system caused by Lyssavirus type. It is a zoonotic disease of warm blooded animals such as dogs, jackals and wolves. It is transmitted to man usually by bites or licks of rabid animals. Rabies is present in all continents with the exception of Antarctica, but more than 95% of human death occur in Asia and Africa. Once symptoms of the disease develop, Rabies is nearly always fatal. Every year, more than 15 million people worldwide receive a post-exposure vaccination to prevent the disease. In Ayurvedic texts Alarka is described as visha. Brihatrayee describes its signs and symptoms, incurable features and treatment in detail i.e. Charka, Shusruta, Vagbhata detail explanation about sign & symptom of Alarka incurable features & treatment of Alarka is mentioned.

Ayurvedic View About Alarka

According to Charaka, due to vitiation of tridosha and contrariety of dhatus dog suffers from headache, salivation and drooped face. According to Sushruta and vagbhata, When vata gets aggravated in the body of dog, fox, jackal, bear, tiger etc. It combines with aggravated kapha and accumulates in the channels of their sense organs resulting in loss of sensation. Such sensory deprived animal runs at random with drooped tail,

lowered jaw and shoulder, exuding more saliva and bites any one that come close.

Due to bite of such alarka peedita pashu (Rabid animal) following signs and symptoms are produced in human.

Local and General Signs and Symptoms**Table No. 1: Local Signs and Symptoms.**

Sign and Symptoms	Charka samhita	Sushruta Samhita	Ashtaang Samgraha	Ashtaang Hrydayam
Suptata (Loss of sensation)	✓	✓	✓	✓
Krishna asruka strava (Blackish coloured bleeding)	✓	✓	✓	✓
Kandu (Itching)	✓	-	✓	✓
Nistoda (pain)	✓	-	✓	✓
Vaivarnya (Discolouration)	✓	-	✓	✓
Kleda (Exudation)	✓	-	✓	✓
Vidaha (Buring sensation)	✓	-	✓	✓
Raga (Redness)	✓	-	✓	✓
Shopha Granthi (Suppurative and cystic swelling)	✓	-	✓	✓
Danshavdaran (Tearing of tissue)	✓	-	✓	✓
Spota (Appearance of vesicles)	✓	-	✓	✓
Nikunchana (Contractures)	✓	-	✓	✓
Mandal (Ring like patches)	✓	-		

Table No. 2: General Signs and Symptoms.

Sign and Symptoms	Charka samhita	Sushruta Samhita	Ashtaang Samgraha	Ashtaang Hrydayam
Hritshula (Chest pain)	✓	-	✓	✓
Shiroruka (Headache)	✓	-	✓	✓
Jwara (Fever)	✓	-	✓	✓
Stambha (Stiffness)	✓	-	✓	✓
Trishna (Thirst)	✓	-	✓	✓
Murccha (Fainting)	✓	-	✓	✓

Asadhya Lakshana (Incurable features)

- 1) When affected person imitates the voice and activities of an animal by which he got bitten, it becomes incurable.
- 2) When affected person sees the image of an animal by which he got bitten in water and in mirror it becomes incurable.
- 3) Jalasantrasa (Hydrophobia)- When affected person gets frightened by sight, touch and sound of water such condition is called as Jalasantrasa (Hydrophobia), it is incurable.

Treatment

- 1) Prophylaxis methods- The person in whom the poison is spontaneously aggravated has no chance of recovery, hence the poison should be artificially aggravated (and then remedied) before reaching that stage of aggravation.
- 2) Agnikarma- Blood containing poison should be removed from the site of bite and then site should be burnt by pouring hot ghee on it then agada (antipoisonous medicine) should be applied as warm poultice on that area. Juice of pratyakpushpa (*Achyranthes aspera*) flowers should be squeezed on the wound.
- 3) Ghritpaan (Drinking of ghee) and Purgation- Affected person should be made to drink old ghee and purgative drugs along with milky sap of arka (*Calotropis procera*) should be administered.

- 4) Propitiatory bath- The person should be taken to the banks of river or a meeting place of four roads and be given bath with cold water from pots containing precious gems and medicinal plants.
- 5) Sanshodhana (putrifying therapies)-After bath the person should be administered strong putrifying therapies (Vomiting and purgation) because in a person who is not purified well, the poison gets aggravated again, though the wound has healed.
- 6) Preparation of medicines and treatment in Alarka Visha-
 - a) Palala (Paste of tila) mixed with tila taila (*Sesamum indicum*), milky sap of arka (*Calotropis procera*) and guda (Jaggery) should be administered. Dhatura (*Dhatura metel*) along with shweta punarnava (*Boerhavia diffusa*) should be administered. These drugs are said to destroy the poison of rabid dog as easily as wind drives away the cluster of clouds.
 - b) Dhatura Sharpunkha Yoga- Root of Sharpunkha (*Tephrosia purpurea*) one karsha (10 gs) and root of Dhatura (*Dhatura metel*) half karsha (5gms) should be macerated along with tandula (rice) using tandulodaka (rice water) this paste should be enveloped with leaves of dhatura and apupa (pan cake) should be made with it. This cake should be consumed at the time of meals (mid day) by the person suffering from poison of rabid animal.

If after the digestion of this pan cake the person still behaves like rabid animal as before, then he should be kept confined in a cold room devoid of water.

Once the abnormal symptoms subside the person should be given bath the next day. He should be given warm meals of boiled rice along with milk. This kind of treatment should be given for 3-5 days and be continued by half its degree for further days until abnormal symptoms subside.

e) Repeated application of paste of tila (Sesamum indicum), guggula (Commiphora mukul), durva (Cynodon dactylon), dadima (Punica granatum) and guda as a warm poultice is best to treat the local symptoms of dog bite.

f) Roots of nala (Arundo donax) macerated with water is beneficial for drinking and external application.

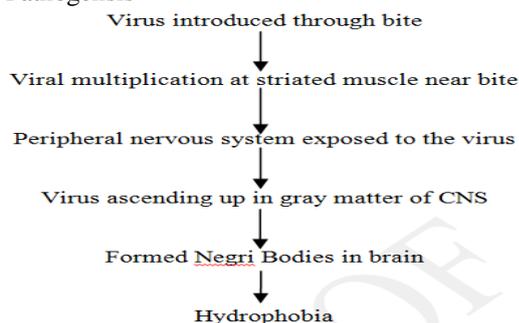
g) Rasana (Allium sativum), Marich (Piper nigrum), Pippali (Piper longum) and Triphala (Embllica officinalis, Terminalia chebula, Terminalia bellerica) macerated with cow bile if used as nasal drops, collyrium and external application is the best medicine for dog bite.

h) Decoction of leaves, bark, root of jalavetasa consumed cold is best medicine for dog bite. Medicated ghee prepared from this decoction used for drinking, nasaldrops, anointing and external application is best in all types of Jalasantrasa (Hydrophobia).

i) The wound caused by the nails or teeth of such rabid wild animals should be squeezed and warm oil should be poured over the area, as these aggravates vata. Application of paste of somvalka (Myrica esculanta), ashvakarna (Dipterocarpus turbinatus), gojihva (Onosmabraceatum), hamsa-padika (Adiantum lunulatum), ha-ridra (Curcuma longa), daruharidra (Berberis aristata) and gairika removes the poison from the wounds caused by nails and teeth.

Modern View About Alarka (Rabies)

1. In modern science alark vish is correlated with Rabies
2. Rabies is an infectious disease characterized by encephalitis with spasm of different muscles, paralysis, fear of water etc. Due to fear of water it also called as Hydrophobia. It is caused by neurotropic filtrable rabido virus transmitted commonly by the bite or lick infected rabid animal commonly a dog. Apart from this this other animals such as bats, scunk, raccoons, cattle, fox, cat may also transmit the disease through open wound.
3. Pathogenesis -



Note: Presence of Rabies Virus in cytoplasm of CNS is Negri bodies

4. Incubation period

Ten days to two years, average 18-60 days but it varies with age of the patient and the site of bite. Individuals with head and neck bite or who are young will have a shorter incubation period.

The closer the site of infection is to your brain, the shorter the incubation period. For example, a bite to your face, head or neck will have a shorter incubation period than a bite to your arm or leg. The length of the incubation period of rabies are important as it's the only period in which treatment can be successful.

5. Clinical features- The features develop in several stages:

A) Premonitory or initial stage – This stage lasts for a day or two days. It includes:

- Fever
- Headache
- Feeling generally unwell
- Feeling scared or anxious

Around half of people also experience pain and tingling sensation at the infection site.

B) Stage of irritability or excitement - Includes gradually spasm of different muscles particularly of deglutination may become very prominent and not to speak or drinking, even sight of water may initiate spasm (so the disease is called Hydrophobia). This stage typically includes aggressive behavior, hallucinations, agitation & producing lots of saliva.

C) Stage of paralysis – Spasmodic contraction gradually disappears and paralysis of different muscle groups sets in.

Diagnosis

This is done by isolation of virus and demonstration of Negri body by immunofluorescence test in infected tissue or antibody titre. Dogs or other animals are killed for demonstration of Negri body in the brain (hippocampus and cerebellum).

Treatment - Treatment of wound:

- a) Scrub with soap (or detergent) and water under a running tap for at least 5 minutes.
- b) Remove foreign material.
- c) Rinse with plain water.
- d) Irrigate with virucidal agent e.g. 40-70% alcohol, povidone iodine or 0.01% aqueous iodine.
- e) Explore, debride and irrigate deep wounds and avoid suturing and occlusive dressings.
- f) Consider tetanus risk and treat accordingly.

Prophylaxis• **Pre-exposure prophylaxis**

SN	Vaccine	1 st dose	2 nd dose	3 rd dose	Next dose
1.	Human diploid cell vaccine (HDCV)	1 ml 0 day	1 ml 7 day	1 ml 21 day	1 ml in next 6 month for continuous risk
2.	Purified chick embryo cell vaccine(PCECV)	1 ml 0 day	1 ml 7 day	1 ml 21 day	1 ml in next 6 month for continuous risk

• **Post exposure prophylaxis**

SN	Vaccine	1 st dose	2 nd dose	3 rd dose	4 th dose	5 th dose	6 th dose
1.	Human diploid cell vaccine (HDCV)	1 ml 0 day	1 ml 3 day	1 ml 7 day	1 ml 14 day	1 ml 30 day	1 ml 90 day
2.	Purified chick embryo cell vaccine(PCECV)	1 ml 0 day	1 ml 3 day	1 ml 7 day	1 ml 14 day	1 ml 30 day	1 ml 90 day

Note – Given in deltoid muscles or in children anterior part of thigh region.

Vaccine is not given in gluteal region as it inhabits absorption due to excessive fat.

Post Mortem Appearance- No characteristic feature are seen. Negri Bodies may be found in brain affected site of bite may be Inflamed.

Medico-legal Importance- Poisoning is usually accidental.

DISCUSSION

According to modern science, there is no specific treatment for rabies. Rabies is usually fatal and major efforts are only for prevention. Ayurveda emphasizes the same. In Sushruta samhita, many yogas are mentioned to prevent the pathogenesis of rabies. Dhatura Sarpunkha yoga is one of them. According to Bhavaprakash, Dhatura (Dhatura metel) and Sharapunkha (Tephrosia purpurea) are vishapaha (antipoisonous), when both the drugs are used in combination the anti poisonous effect is enhanced. Dhatura itself is a Sthawar visha (Vegetable poison) and use of Sthawar visha is recommended in treatment of Jangam visha (Animate poison), after shuddhikaran (purification) of Sthawar visha. Dhatura can also be used in combination with shweta punarnava (Boerhavia diffusa) which is also vishghna (anti poisonous).

CONCLUSION

In Sushruta Samhita it is mentioned that, the person in whom the poison increases on its own accord, he does not survive, hence it should be made to increase quickly, if not increasing on its own. This indicates that the prophylactic treatment plays a major role, because as the disease is progressing it is very difficult to treat and becomes incurable. Various remedies useful in dog bite are described in Brihatrayee. There is need to study the efficacy of these drugs as the efficacy of these drug is proved, it will be a precious gift to the world of medical science and ultimately a blessing for humanity.

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