



**ALARKA VISHA AND RABIES – A COMPARATIVE LITERARY
REVIEW**

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ABSTRACT

According to WHO , there are about 10 million cases of rabies reported every year. Annually there are about 55,000 human deaths worldwide due to rabies. India has been reported as having the highest rabies cases in the world. Rabies is a deadly virus spread to people from the saliva of infected animals. The rabies virus is usually transmitted through a bite. Animals most likely to transmit rabies include bats, coyotes, foxes, raccoons and most importantly stray dogs. It is spread when an infected animal bites or scratches a human or other animal. Saliva from an infected animal can also transmit Rabies if the saliva comes into contact with the eyes, mouth, or nose. Symptoms of rabies are fever, headache, excess salivation, muscle spasms, paralysis and mental confusion. Rabies is a zoonotic, viral infection which can be treated by anti rabies vaccine. Once clinical symptoms appear, rabies becomes incurable and thus 100% fatal

Key words : zoonotic, vaccine, WHO

INTRODUCTION: Rabies is a Latin word which means madness. Rabies is caused by lyssavirus, Rabies virus and Australian bat lyssavirus. Rabies is the resultant of a bite or a deep scratch from an infected animal. Saliva of the stray dogs play a major role in spreading the deadly Rabies virus among human population than any other animal. This viral disease causes inflammation of the brain along with the other symptoms. Early symptoms include fever and tingling at the site of the bite or scratch. These symptoms are followed by nausea, vomiting, violent movements, uncontrolled excitement, hydrophobia, inability to move, confusion and unconsciousness. Once the symptoms appear, the result is always fatal. The time period between contracting the disease and the start of symptoms is usually one to three months. The time depends on the distance the virus

must travel along the peripheral nerves to reach the central nervous system.

Rabies is majorly associated with dogs. Animals such as racoons, cattle, fox, cat, bats etc can also spread rabies after being infected. The virus enters the brain by travelling along the efferent nerves by multiplication. It reaches the salivary gland and the person succumbs to death within 5-7 days after this.

Incubation period : 10days to 2 years (average being 18-60days)

CLINICAL FEATURES :

Premonitory stage : The first symptoms of rabies may be very similar to those of the flu and may last for days. It lasts for about 1-2 days

- Pain and irritability at the bite site
- Generalised discomfort
- Intolerance to sound
- Spasm of the muscles
- Raise in generalised body temperature
- Headache , fatigue

- Anorexia, diarrhoea, weakness

Later signs and symptoms may include:

- Fever
- Headache
- Nausea
- Vomiting
- Agitation
- Anxiety
- Confusion
- Hyperactivity
- Difficulty swallowing
- Fear brought on by attempts to drink fluids because of difficulty swallowing water
- Hallucinations
- Insomnia
- Partial paralysis
- Difficulty in breathing with increased respiratory rate
- Large amount of thick saliva
- Cyanosis
- Hoarseness of voice
- Jerky movements

All these symptoms last for 1 or 2 days, later death happens due to heart failure.

Stage of paralysis :

- Disappearance of spasmodic contractions
- Patient will be conscious till the end which lasts for about 10 hours.
- Rapid death

DIAGNOSIS :

- Immunofluorescence test by which Negri bodies can be demonstrated
- Antibody titre
- Isolation of the virus

Ashtanga Sangraha explains the following animal bites are also to be treated as *alarka visha*, like *srigala* (jackal), *Aswa* (horse), *dwipi* (panther), *vrika* (wolf), *aswatara* (mule), *vyaghra* (tiger).

According to *Ashtanga Sangraha of Vagbhata*, *kapha dosha* gets predominant

of the other *doshas* and invades the *srotas* in the body of the dog to produce severe abnormalities in the mind and the body of the dog. The dog afflicted runs over aimlessly with dripping of saliva from the mouth, dog experiences deafness, headache, hides the tail, lowers the jaw and neck bends downwards.

If such a dog bites a man the person becomes *murchita* after experiencing *hrit shula*. Further he experiences *shira shula*, *jwara*, *sthambha*, *trishna*.

Locally there will be discharge of the black coloured blood, itching, pain, discolouration, loss of sensation, burning sensation, reddened, suppurated vesicles, swollen, tearing of the muscles along with painful tremors.

If a person gets frightened by looking at water or by touch or sound though he is not bitten by a mad animal should be rejected for treatment.

CHIKITSA-

According to *Ashatanga Sangraha*³

- *Kwatha* is prepared out of *jalavetasa* and when it is consumed cold is considered to be the best treatment for dog bite. *Ghruta* prepared out of the same also can be used for *nasya*, *pana* and for external application in *jala santrasa*.

- *Yava*, *Masha*, *Kulattha* and *Panchamoolas* should be made into *Kwatha*. *Ghruta* is prepared using 1 part of ghee, 2 parts of milk. *Kalka* of *Ashwagandha*, *Saha*, *Kushta*, *Brihati*, *Rajani*, *Vidari*, *Nata*, *Khatvanga*, *Payasya*, *Sindhuvaraka*, *Sarpagandha*, *Nakha*, *Abheeru*, *Sarkara*, *Rakta chandana*. *Kwatha*, *ghrita* and *kalka* are mixed and cooked on fire to prepare *ghrita*. This *ghrita* will be helpful in curing all the complications arising due to dog bite by *pana* and external application over the wound area.

According to *Sushruta* because of the presence of *visha*, *vayu* gets vitiated by the *kapha* and hence the *sangnavaha srotas* of the animal gets affected and so the consciousness of the animals like dog, jackal, wolf etc gets hampered.⁴ The *visha* takes shelter in the sense organs. As result of which there will be drooping of the jaw bones, along with copious flow of saliva from the mouth of the animal. There will be drooping of the tail of the animal. Thus the animal becomes deaf, blind and runs aimlessly and bites irrespective of whoever it finds.¹

Clinical Features of The Dog Bite

According to *Sushruta*,¹

- Dark blood discharge from the bitten area
- Numbness
- The person imitates the howling of the animal which has bitten him
- Becomes motionless and ultimately dies

According to *Vagbhata*, the dog bite is of 2 types⁵

- *Savisha*
- *Nirvisha*

Savisha corresponds to the poisonous bite and that of *nirvisha* is non poisonous.

Features of *Savisha* Bite :

- Bleeding from the bitten area with blackish coloured blood
- Severe pain
- Discolouration
- Loss of sensation
- Itching
- Fever
- Suppurative changes
- Vesicles formation
- Tearing of the layers of skin and tissues beneath
- Burning sensation in the abdomen
- Ring shaped patches

- Swelling like lotus seeds all over the body

Features of *Nirvisha* Bite : The *nirvisha* bite will be of the opposite qualities as that of the *savisha* one.

General Features :

- Chest pain
- Fever
- Thirst
- Headache
- Generalised rigidity
- Fainting

*Asadhya Laxanas*² :

- Man howling like the animal
- Imitating the animal behaviour
- Inability to do any activity – paralysed limbs
- Hallucinations of the animal in water and mirror

JALASANTRASA (Hydrophobia) : It is a condition in which the person bitten by the mad dog gets scared by looking at water and touching it. He often sees the image of the dog in the water which does not exist in reality. This condition is called as *Jalasantrasa*. This sign is considered fatal^{10,11}

TREATMENT : According to *Sushruta*, Locally,⁴

- The bite place should be pressed so that the vitiated blood lets out.
 - Cauterisation of the wound should be done using hot ghee.
 - Anti poisonous drugs paste has to be applied over the wound
 - *Somavalkala*, *Aswakarana*, *Gojihwa*, *Hamsapadika*, *Haridra dwaya* paste has to be made and applied over the injured part.
- Systemically¹¹,
- *Purana ghrita pana* is to be done.
 - *Virechana With Arka* or any other *virechanopaga* drug should be given

- After which *swarasa of Ankola patra* along with *Dattura phala swarasa or punarnava* with *ghrita* has to be given.
- Paste of *Tila, Tila taila, Sita, Arka ksira* are ground together and *kalka* has to be administered.
- *Sharapunka mula* – 1part , *Dattura mula* - ½ part , sufficient quantity of rice are mixed together and ground along with rice washings. The whole thing is covered with *Dattura* leaves and heated. After cooling this bolus is given to the patient. Next day patient is given bath and given *shahstika shali* mixed with salt and cooked in milk. Procedure to be repeated on 3d and 5th day dose being half.
- *Vyaghrapadi swarasa* – 2 palas daily to be given in the morning.

According to Modern Science the approach to Rabies infection is as follows-

Prophylaxis : Anti Rabies vaccines can be given as one single dose of Intra muscular injection with a dose of 2.5IU as pre exposure and post exposure Prophylaxis. It is suitable for those who are

- Bitten by the Rabid animal
- Identification of negri bodies
- Death of the dog/animal
- Deep wound with the saliva of the animal
- Disappearance of the animal
- Bite on the upper body parts like face or head
- Rabies prevalent area.

Vaccination Schedule : Once there is a dog bite irrespective of the rabid dog or healthy dog, one must undergo the immunization schedule of rabies vaccination.

A regimen of four 1ml doses of Human Diploid Cell Vaccine(HDCV) or Purified Chick Embryo Cell (PCEC) vaccines should be administered intramuscularly to

previously unvaccinated persons. The first dose of the four-dose course should be administered as soon as possible after exposure. Additional doses should be administered on days 3, 7, and 14 after the first vaccination.

Care of the area of bite : Care of the exposed areas of skin as first-aid measures include thorough flushing and washing of the wound which should be done as early as possible for a minimum of 15 minutes of running water with soap, detergent, povidone iodine or other substances which can remove and kill the rabies virus.

The animal should be identified, and it has to be removed from the community and either quarantined for observation even if they seem healthy like dogs or subjected for immediate laboratory examination (dead or euthanized animals showing clinical signs of rabies).

DISCUSSION

Sthavara visha is the recommended medicine for any of the *jangama visha*(Animate poison) according to *Ayurveda*.² We can see the usage of *Dattura*(*sthavara visha*), *shweta punrnava* and *sharapunkha* have been explained as medicines which can be used to treat dog bite. *Sushruta* and *Ashtanga Sangraha* explain various *yogas* which are helpful in treating the *Alarka visha*⁵. Modern science, there is no specific treatment for rabies. Rabies is usually fatal and major efforts are only for prevention. *Ayurveda* opines the same. In *Sushruta samhita* , many *yogas* are mentioned to prevent the pathogenesis of rabies⁴. *Dhatu Sarpunkha yoga*¹² is said to be effective against *alarka visha* for its antipoisnous effect⁷.

CONCLUSION: Various combination of drugs have been explained in all the classical texts for *Ayurveda* and

Brihatrayee for Alarka visha. It is also mentioned that once the morbid symptoms appear in a dog bitten person it is almost impossible to cure. Sushruta Samhita explains the person will not survive in whom the poison increases in the body on its own, and so it should be made to increase as early as possible. This is a clear indication that the prophylactic treatment has been explained in our classics along with its importance. Further studies need to be done in this field as this is the need for today's world. By which Ayurveda can contribute a lot to the society as the drugs are known to be safe and efficacious.

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