

Snake Bite and Ayurvedic Aspect - A Review Article

Dr. Ravindra Prakash Kulkarni

Assistant Professor, CSMSS Ayurved College,
Kanchanwadi, Chhatrapati Sambhaji Nagar

Abstract-

Snakes have always been a part of our curiosity because of their lethal bite and fatality. They have also been a part of our religious processions over the years. A snake bite is a skin wound caused by the bite of snake which can cause severe reaction and even death. Non venomous bites are rarely serious. So here is an effort to establish the reason of snake bite according to modern science and Ayurveda as per the texts. As per the modern texts there are 3500 species of snakes throughout the world of which 300 are poisonous. In India there are 216 species of snakes of which 52 are poisonous. Agadtantra describes the snakes and their venomous effects which is one the most important branch of Ayurveda. Agad Tantra also describes their types, their venomous effect and its management.

Introduction

Snakes are described in Agadtantra which is one of the eight branches of Ayurveda texts. Agadtantra also describes the snakes under Janagam visha and their venomous effects which is one the most important branch of Ayurveda. Agad Tantra describes their types, their venomous effect and its management. Snakes have always been a part of our curiosity because of their lethal bite and fatality. They have also been a part of our religious procession. So here is an effort to establish the reason of snake bite according to modern science and Ayurveda as per the texts. Poison and its management is described in all major ancient texts e.g. Acharya Sushruta has described poison and their management in eight chapters and has dedicated a separate section (Kalpa sthana). Charaka has elaborated 24 modalities of treatment to deal with poisoning.

Key words : sarpa, visha, snake, poison, venom
Methods and materials-

The snakes are elongated reptiles with scales with short tail but no limbs. Body is highly flexible all throughout the length and moves by gliding.
¹Agad tantra is one of the eight branches of Ayurveda that deals with the study of bites of snakes, insects, spiders, rats, plant based poison etc. their types and their management.
² substance which deteriorates

health and causes imbalance of doshas and then kills is called visha³.

Ayurveda classifies snakes in two types viz. Divya (godly) and bhoom (earthly). Divya sarpas bite as per the order of god and their messengers and are considered incurable⁴. The earthly snakes are divided as darvikar (Vaata dominant), mandali (pitta dominant), rajiman kapha dominant, vaikaranja mixed breed and nirvisha non poisonous⁵.

The earthly snakes bite for food because of fear, when foot fall on them, when they are angry, due to sins or by the order of god or saints⁶. Snakes who are drowned, timid, have fought with mongoose, diseased, tired, after mating, traveled, age old or new born are less toxic and snakes near grave yard who are hungry who bite at daylight are more toxic⁷.

As per the modern texts there are 3500 species of snakes throughout the world of which 300 are poisonous. In India there are 216 species of snakes of which 52 are poisonous⁸. An estimated 5.4 million people world wide are bitten by snakes each year with 1.8 to 2.7 million cases of envenomation. Around 81,410 to 1,37,880 people die each year because of snake bites and around three times more as many amputations and permanent disabilities are caused by snake bites annually⁹.

Poisonous snakes are classified as
Elapidae – cobra, naja naja
Viperidae – russels viper, pit viper

Krait – common krait, banded krait
Hydrophidae – sea snakes , hydrophiles caeruleus ¹⁰

The snake bite are mainly of two types

- A) Business bites- inflicted when the snake is after prey . usually large amount of venom is released in business bite
- B) Defense bite- snakes object here is to escape a little or no venom is injected .

It is noticed that in 50% of snake bites there will have a minimum or no poisoning . only in 25% of cases of snake bite develop serious symptoms.

Reason for lack of envonomation following highly venomous snake bites are

- 1 dry bite –no venom is injected
- 2 protective gear – no venom is injected due to covering like shoes or heavily clothed part.
- 3. Leakage of venom – in sidewipes some or whole of the venom may escape outside bitesite
- 4 suspected bite – sometimes snake may bite only to defend .

Risk increases with bites from venomous snake during out door activities in warm months in areas where snakes are known to live . people handling snakes bare handedly put themselves at risk ¹¹ .

According to sushrutacharya poisonous snakes bite is of four types

- 1 *sarpit* – having one or two teeth marks with swelling
- 2 *radit* bite marks with mild swelling which is less toxic
- 3 *nirvish* no swelling , no poisonous signs
- 4 *sarpangabhihat* – only suspicion of snake bite¹²

Ashtang sangrah has mentioned 5 types of snake bite stating the lethality of bite

- 1. *Tundaahat* - non poisonous
- 2. *Vyalidh* -no bleeding involved , non toxic
- 3. *Vyalupt* – two bite marks , toxic bite
- 4. *Danstrak* –three bite marks with bleeding ,poisonous bite
- 5. *Dashtra nipidit* – three bite marks with bleeding, poisonous bite ¹³

The bite symptoms of snakes have also been noted . the symptoms of snake bite depend on the doshadhiky (dosha dominance) of that particular snakes .

<i>Darveekar Sarpa</i> ¹⁴ (Vaata Dominance)	<i>Mandali Sarpa</i> ¹⁵ (Pitta Dominance)	<i>Rajimaan Sarpa</i> ¹⁶ (Kapha Dominance)
blackening of skin ,eyes, face,	yellowing of skin ,eyes, urine, faecal matter	Skin ,eyes,urine,turns white
headache	burning sensation	Heaviness of body
joint pain	vertigo,	Swelling at bite site
dyspnoea	fever	Profuse vomiting
thirst		Itching
cough		
salivation hoarness of voice		

Discussion –

A snakebite is as skin wound caused by the fangs of snake .venomous snakes (cobra, viper etc.) can cause severe reaction . Non venomous bites are rarely serious . Bites on the head and trunk are more serious bites. Snakes are more likely to bite joggers, walkers, hikers fishers or anyone playing with or working where snake lives . The earthly snakes bites for food because of fear ,when foot fall on them , when they are angry, due to sins or by the order of god or saints. Snakes who are drowned ,timid , had fight with mongoose ,diseased ,tired , , after mating ,traveled , age old or new born are less toxic and snakes are near grave yard who are hungry who bite at daylight are more toxic.

Conclusion –

There are 3500 number of species of snake out of which 300 species are poisonous . the cause of snake bite that are elaborated in Ayurveda and modern texts are stated in brief . snakes are an important part of our ecosystem . There is a sense of fear as well as curiosity in the public regarding them . Many deaths are reported even on the bite of non poisonous bite merely due to fear. so there is a need to know about causes and types o snake bite.

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