

# जडंगम विष

By -

**Dr.Rupali Gudadhe**  
**Lecturer**

**Dept of Agadtantra & Vyavahar Ayurved**  
**Dr.D.Y.Patil College of Ayurved, Navi Mumbai**

# Snake bite

There are about 2500 species of snake in the world, which are classified into ,

- Elapid – e.g. Cobra, King cobra, Krait, Tiger snake.
- Viperide – e.g. Viper, saw scaled viper, pit viper.
- Hydrophilide – e.g. Sea snakes.

<b>Traits</b>	<b>Poisonous</b>	<b>Non Poisonous</b>
1.Body scales	Usually large	Usually small
2.Head scales	Usually small	Usually large
3.Fangs	Hallow like hypodermic needles	Short & solid
4.Tails	Compressed	Not so much compressed
5.Bite marks	2 fang marks with or without other teeth marks	2 fang marks with a number of small teeth marks
6.Habits	Usually nocturnal	No specific habit



WATCH THE FANGS THESE ARE LONGEST FANGS IN  
INDAIN VIPER [c] ADITYA SAWANT



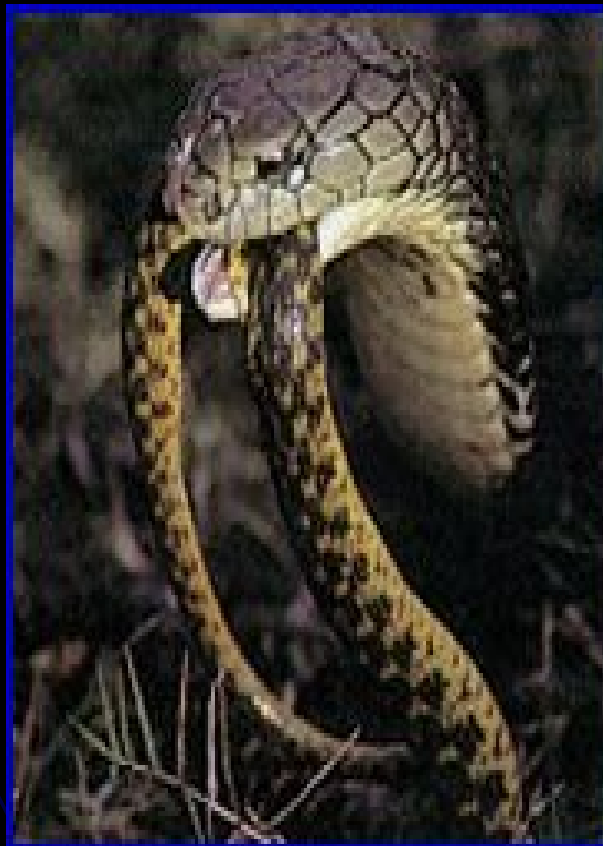
© Mark O'Shea

# CLASSIFICATION OF SNAKES

- Elapid group - 1.Cobra



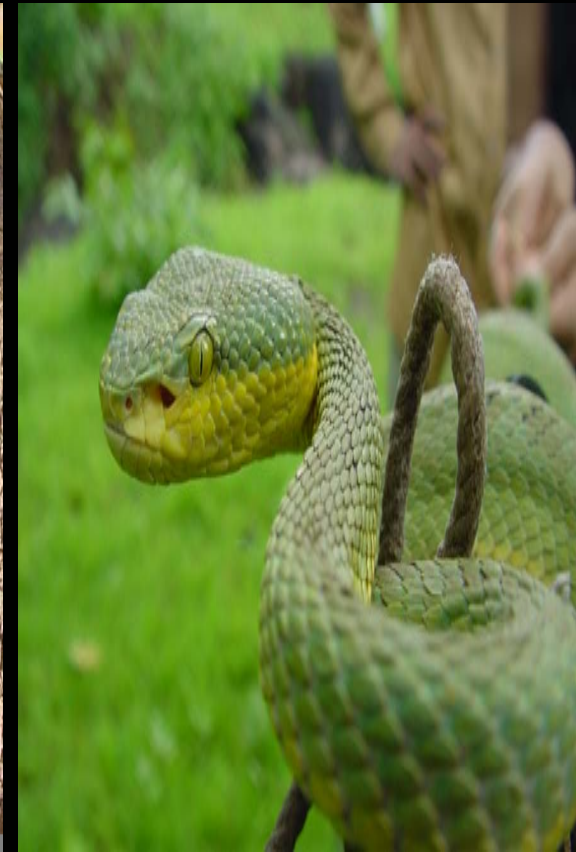
## 2.King cobra -



### 3. Krait -



- Viperide group -



- Hydrophilide group -



# Snake venom

It is the heterogeneous mixture of **proteins** produced & stored in the specialized salivary glands. The freshly secreted venom is transparent, pale liquid & on drying it becomes yellowish, opaque, granular powder which remain active for many years.

The proteins in the venom are in the form of enzymes, peptides & polypeptides. It contains, **Hyaluronidase, fibrinolysin, phospholipase, haemorrhagin, leukolysin, cytolysin, Rhabdomyolysin, proteases** etc.

<b>Elapid venom</b>	<b>Viper venom</b>	<b>Sea snake venom</b>
<b>Neurotoxic</b>	<b>Vasculotoxic</b>	<b>Myotoxic</b>
<ul style="list-style-type: none"><li>● Paralysis</li><li>● Convulsions</li><li>● Ptosis</li><li>● Local symptoms are mild as compare to others.</li></ul>	<ul style="list-style-type: none"><li>● Coagulation disorders</li><li>● Bleeding tendency</li><li>● Local symptoms are severe-cellulites</li></ul>	<ul style="list-style-type: none"><li>● Generalised muscular pain</li><li>● Myoglobinuria</li></ul>

<b>FATAL DOSE</b>	<b>VENOM YIELDED IN ONE BITE</b>
<b>Cobra venom - 15mg</b>	200 to 350mg
<b>Viper venom - 40mg</b>	150 to 200mg
<b>Krait venom - 6mg</b>	22mg
<b>Saw scaled v.v.- 8mg</b>	25mg

# Treatment of snake bite

Main principles of T/t are,

- Reassurance
- Prevention of spread of venom
  - Immobilization
  - Tourniquet
  - cleaning, incision, suction.
- Use of Antivenin (monovalent / polyvalent)
- Atropine- Neostigmin regime in elapids
- I.V. Heparin in Viper bites.
- General measures

# Post mortem appearances

- Two bite marks about 1cm deep in c/o elapid & 2.5cm in c/o viper may be found.
- Severe cellulites, hemorrhage can be seen in viper bite.
- Where as in neurotoxic venom no definite signs except s/o asphyxia can be seen.

## MEDICO LEGAL ASPECT

Snake bite is generally accidental ,rarely homicidal, & very rarely suicidal. Sometimes adopted for cattle killing.

# Ayurved view

## Classification-

### भौम सर्प

#### सविष

- दर्वीकर - 26
- मंडली - 22
- राजिमन्त - 10
- वैकरन्ज - 10

#### निर्विष

12

$$\text{Total} = 68 + 12 = 80$$

सर्प नाम	संख्या	स्वरूप	रस प्रधानता	दोष प्रकोपकता	Potency
दर्वीकर cobra	26	marks of cross, making hoods	कटु रुक्ष	वात	Potent during young age
मण्डली viper	22	Big patches, lustrous look	अम्ल उष्णवीर्य	पित्त	Potent during old age
राजिमन्त krait	10	Colorful strips as if painted	मधुर शीतवीर्य	कफ	Potent in middle age

# Fangs of Sarpa / दंष्ट्रा

## Acharya Charak described 4 Fangs

Side	Fangs	+ns of Venom
Left	Lower	1 drop
	Upper	2 drops
Right	Lower	3 drops
	Upper	4 drops

# Kinds of Snake bite

Bite pattern	Acc.to Vagbhat	Acc.to Sushruta
Saliva of snake +, No bite marks	तुण्डाहत	निर्विष
1 or 2 Fang marks, no bleeding	व्यालीढ	
1 or 2 Fang marks, bleeding	व्यालुप्त	रदित
3 fang marks, oozing of blood	दष्टक	
4 fang marks, muscles puncture, severe bleeding	दंष्ट्रानिपीडीत	सर्पित
Psychological manifestations arising due to mere touch of		सर्पांगभिहत

# दंष हेतु / Reasons of biting

आहारार्थं भयाद् पादस्पर्शादतिविषात् कृधः ।

पापवृत्तितया वैराद्देवर्षियमचोदनात् ॥

दशन्ति सर्पास्तेषुक्तं विषाधिक्यमं यथोत्तरम् ॥

अ ह उ — 36/8-9

**Contra indicated things in snake bite**

न पिबेत् तैलं कौलत्थमद्यसौवीरकाणि च ।

# विषवेग लक्षण

वेग	दर्वीकर	मण्डली	राजिमन्त
१ रक्त प्रवेश	कृष्ण वर्णता पिपीलिका परिसर्पण प्रतिती	पीतता शीतज्वर	पाण्डुवर्ण रोमहर्ष
२ मांस प्रवेश	अतिकृष्णता शोथ ग्रन्थि	अतिपीतता दाह दंशस्थाने शोथ	मांसशार्थिलता शिरःशोफ जाडय
३ मेदो प्रवेश	दंशक्लेद शिरोगौरव स्वेदागमन चक्षुग्रहण असमर्थता	दंशक्लेद तृष्णा स्वेदागमन चक्षुग्रहण असमर्थता	दंशक्लेद घ्राणाक्षिस्त्राव स्वेदागमन चक्षुग्रहण असमर्थता
४ कोष्ठ प्रवेश	आलस्य संधिविश्लेष	ज्वरवृद्धि	शिरोगौरव मन्यास्तम्भ
५ अस्थिप्रवेश	प्राणाग्नि दुष्टि हिक्का दाह पर्वभेद	सर्वगात्र परिदाह	वाक्संघ शीतज्वर

वेग	दर्वीकर	मण्डली	राजिमन्त
६ मज्जा प्रवेश	ग्रहणी दुष्टि मुर्च्छा अंगगौरव अतिसार हृदयशूल	ग्रहणी दुष्टि मुर्च्छा अंगगौरव अतिसार हृदयशूल	ग्रहणी दुष्टि मुर्च्छा अंगगौरव अतिसार हृदयशूल
७ शुक्र प्रवेश	व्यानवायुप्रकोप कटि पृष्ठभंग चेष्टानाश लालास्रावाधिक्य अतिस्वेद श्वासनिरोध	व्यानवायुप्रकोप कटि पृष्ठभंग चेष्टानाश लालास्रावाधिक्य अतिस्वेद श्वासनिरोध	व्यानवायुप्रकोप कटि पृष्ठभंग चेष्टानाश लालास्रावाधिक्य अतिस्वेद श्वासनिरोध

# Treatment

- Aristabandhan
- Achushan, Chedan, Agnikarma
- Raktamokshan
- Parisheka
- Vaman
- Anjan
- Basti, Virechan
- Nasya
- Upadhan
- Shaman
- Hridayaraksha
- Mani prayog

<b>Stages</b>	<b>Darvikar</b>	<b>Mandali</b>	<b>Rajimant</b>
<b>1.Rakta dushti</b>	Roktamokshan	Roktamokshan	Roktamokshan agadpan (madhu+ghrit)
<b>2. Mansa dushti</b>	Agadpan (madhu+mishri)	Agadpan, Yavagu (madhu+ghrit)	Vaman, Agadpan
<b>3. Medodushti</b>	Nasya, Anjan	Virechan, Yavagu	Nasya, Anjan
<b>4. Koshtha pravesh</b>	Vaman, Yavagu	Vaman, Yavagu	Vaman, Yavagu
<b>5. Asthidushti</b>	Shitopachar, Virechan, Yavagu	Vaman, Yavagu	Vaman, Yavagu
<b>6. Majja dushti</b>	Shitopachar, Virechan, Yavagu	Kakolyadi gana, Agadpan	Tikshana Anjan
<b>7.Shukra dushti</b>	Tikshana Anjan, avped nasya,	Agadpan avped nasya	avped nasya

# शास्त्रोक्त अगद

- अमृत सर्पि
- कल्याणक सर्पि
- ऋषभक अगद
- तार्क्ष अगद
- महाअगद
- महासुगंधित अगद
- सुरसादि योग

# Scorpion sting

© Achyuthan



© Achyuthan



वृश्चिक विष

- वातोल्वणविषा वृश्चिकाः ।

**Types [total-30]**  
as per Sushrut

**Origin**

1. मंद विष (12) - from putrefied cow dung
2. मध्यम विष (3) - from wood & bricks
3. महा विष (15) - from dead bodies of snakes & poisonous substances

as per Charak, 1. दूषी विष वृश्चिक 2. प्राणहर विष वृश्चिक

**विषअधिष्ठान - आर (Sting)**

# Clinical features

वृश्चिकश्च विषम तीक्ष्णम् आदौ दहति वह्निवत् ।

उर्ध्वमारोहति क्षिप्रं दंशे पश्चात् तिष्ठति ॥

दंशः सद्योऽतिरूक् श्यावस्तुघ्ने स्फुटति च ।

- A.H.U. 37/6

Scorpion poison is very sharp, potent in nature. It produces severe burning pain which suddenly radiate upwards & then stagnate at the place of bite. The lesion is blackish in colour & associated with severe throbbing pain.

# Specific symptoms

मंदविष	Inflammation, burning pain on lesion, severe pain radiating upwards, fever, perspiration.
मध्यम विष	Inflammation of tongue, anorexia, syncope.
उग्रविष	c/f resembles snake bite. Blister formation on bitten area, burning, fever, hallucination, blackish blood discharge through nose, mouth, hair ducts. Death.

# चिकित्सा

वृश्चिके स्वेदमभ्यङ्गम् घृतेन लवणेन च ।

सेकान् च उष्णान् प्रयुञ्जीत भोज्यम् पानम् च सर्पिषः ॥

च . चि . २३ . १७३

sudation on the bitten site, massage on all over body with the help of rock salt & ghee. Parishek, awgaha with the help of hot & medicated water. Ghrutapan as per patients agni bala.

Treatment of मध्यमविष & महाविष is similar to snake bite poisoning.

# Specific treatment

## मध्यम विष / महाविष

- Swedan - around the lesion by cow dug.
- Pratisaran - by haridra, saindhav, trikatu, shirisha
- Lepa – tulsi patra, bijoura nimbu ras, gomutra
- Dugdhan - milk added with ghrit, madhu, sharkara.

## मंद विष

- Parishek – by freshly prepared oil /lukewarm oil
- Utkarika / Upanaha- using anti poisonous dravya
- Paan – syrup prepared by dalchini, ela, tejpan, nagkeshar, jaggary.
- Dhoopan – by feathers of peacock, rock salt, oil & ghee.

# Venom -

Usually **Neurotoxic & Haemotoxic** action (predominately neurotoxic). It is a potent autonomic stimulator resulting in the release of catecholamine from the adrenal glands & nerve endings into circulation. It also has some **direct effect on Myocardium**. Both these actions results in cardiac arrhythmias, hypertension & later on hypotension, bradycardia.

# Clinical features

- Local – Irritation, redness, severe burning pain radiating from the site.
- Systemic – Headache, nausea, giddiness, profuse perspiration, chest discomfort, paraesthesias, hyper salivation, cold extremities, hypertension, pulmonary edema, myocarditis.
- Mortality rate in adults is negligible, Children are more susceptible to death.

# Treatment

- Stings of non lethal species require ice packs, analgesics, antihistaminic.
  - Stings of lethal species –
    - Reassurance,
    - Application of pressure bandage, Ice packs at the sting site. Immobilization of the part
    - Infiltration of anasthetic locally
    - Antivenin therapy.
    - Calcium gluconate for muscular cramps.
    - Nifedipine, nitroprusside, Parazocine for HT & pulmonary edema.
    - Atropine for Brady arrhythmias.
    - I.V. Fluids for fluid loss due to sweating & vomiting
- MEDICO LEGAL ASPECT** – Scorpion sting is mostly accidental.