

# A Clinico-epidemiological study of Neurotoxic Snake bite Patient in Tertiary care Hospital

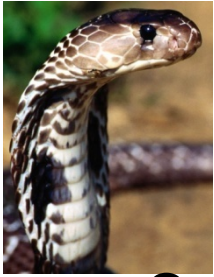
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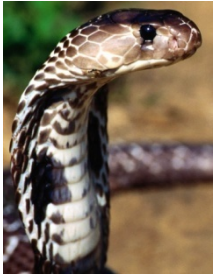


# Introduction

- Snake bite is an important health hazard and medical emergency particularly in rural areas of Bangladesh.
- The current Nationwide survey in Bangladesh revealed around 7,00000 snake bite in a year with 6,000 death. (Ridwan et al)
- Ninety-nine percent incidents are recorded from rural areas. During the monsoon the incidence is high, due to rainfall; the snakes come out of their shelters.

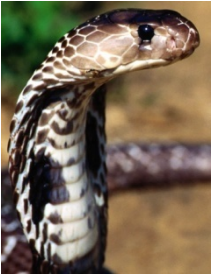


- Cobra bites usually causes neurotoxic features with local envenoming
- Krait bites usually causes neurotoxic features without local envenomation.
- Most often the victim is an active poor young people who gets the bite during day to day occupational activity like
  - cultivation, fishing, plantation, wood collection    lying in the floor , kitchen or even during rural foot walker.



# Methods:

- **Study Design:** Hospital based observational study
- **Study site :** Medicine Department and Pediatrics Department of Dhaka Medical College Hospital
- **Study Period:** July'2015-October'2016
- **Total Patient (n)=40**



# Inclusion and Exclusion criteria:

- Inclusion criteria: All the patients with history of snake bite with at least one of the following criteria:
  - Ptosis
  - Broken neck sign
  - Ophthalmoplegia
  - Respiratory difficulty
  - Difficulty in speech
  - Salivation
- Exclusion criteria:
  - Preexisting neurological illness.
  - Patient who received Antihistamine or sedative before hospital admission



# Study procedure

- Patient of suspected snake bite with neurological manifestation (according to inclusion and exclusion criteria)



Seen by Physician :General and Systemic Examination done



Data was collected in preformed case record form with written consent



Treatment according to National guideline



Follow-up

Statistical analysis done in this method



# Snake Identification

- Brought live specimen by victim or attendance
- Brought killed specimen
- Specimen was identified by Zoologist
- Specimen was identified by victim by showing the photograph or preserved killed specimen

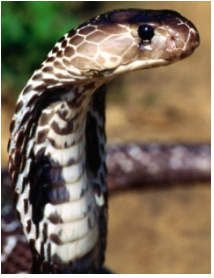


# Results:

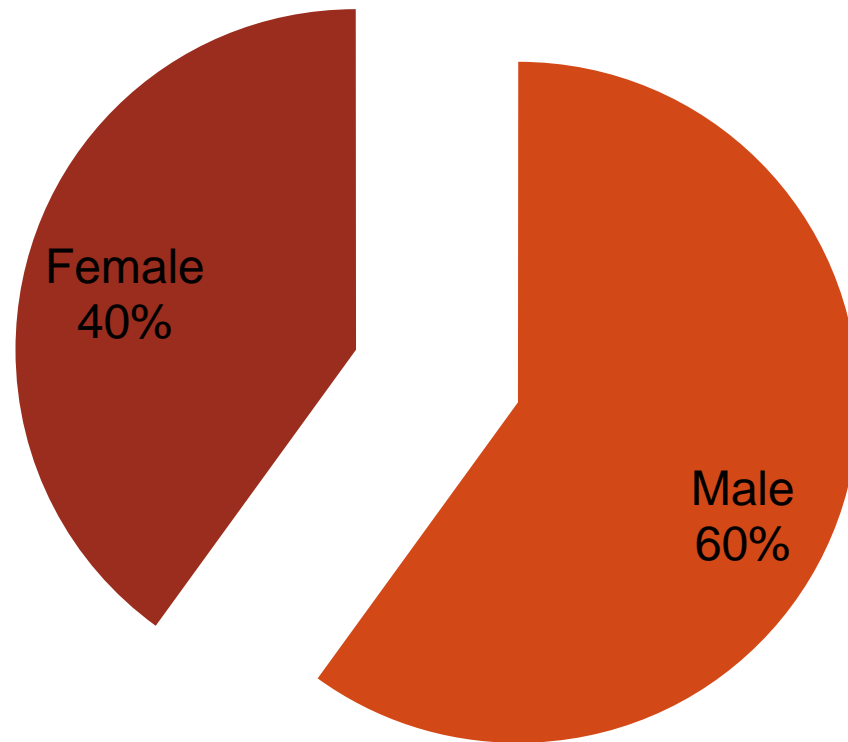
- Age distribution

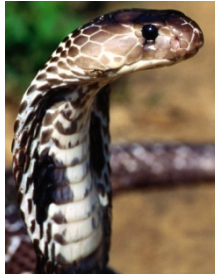
Age(Year)	Total No(n=40)	Percentage
<20yr	9	22.5%
<b>21-30</b>	<b>16</b>	<b>40%</b>
31-40	8	20%
41-50	4	10%
51-60	3	7.5%



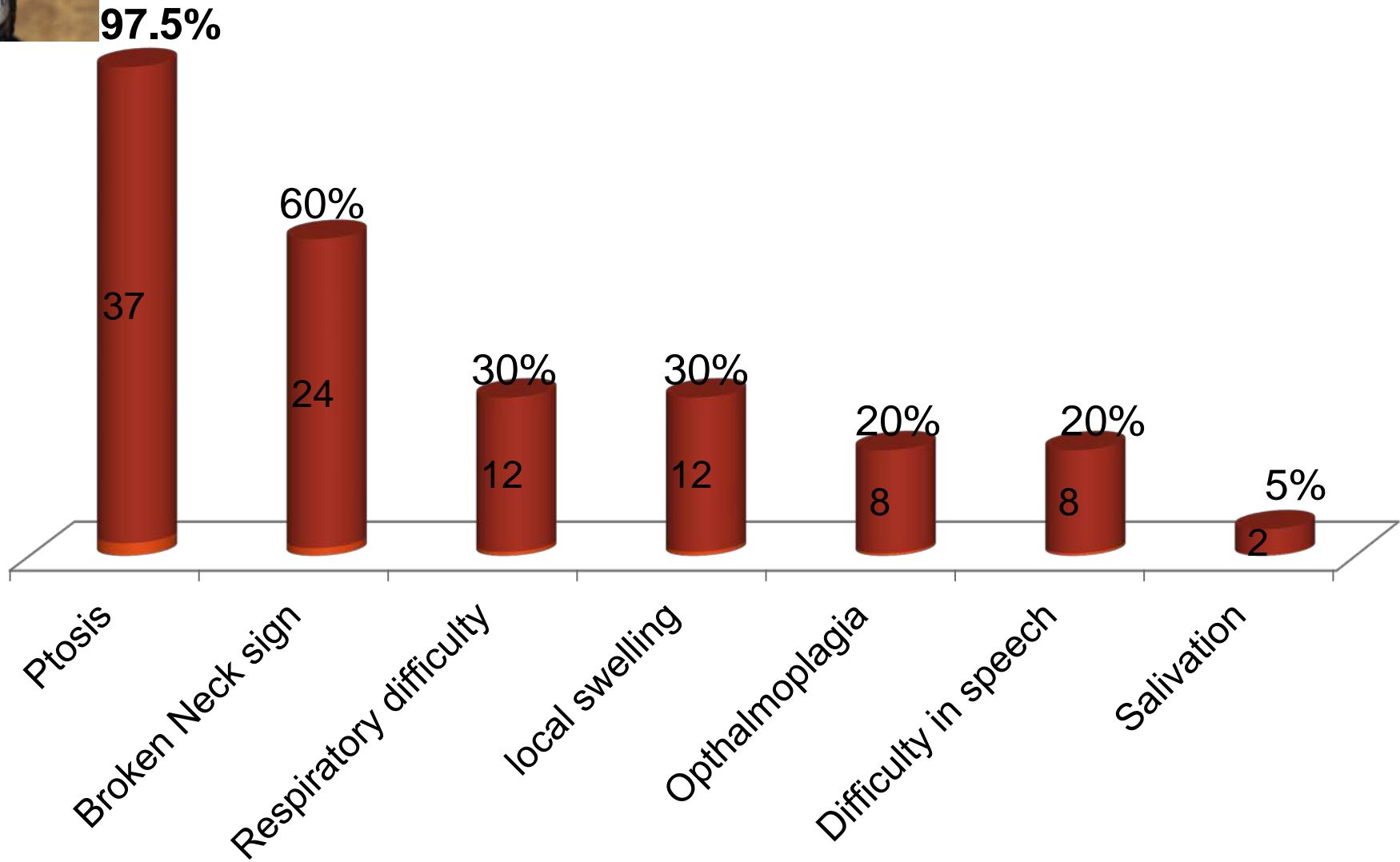


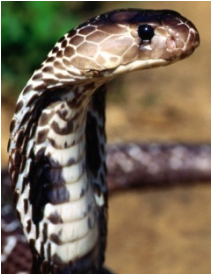
# Sex Distribution:



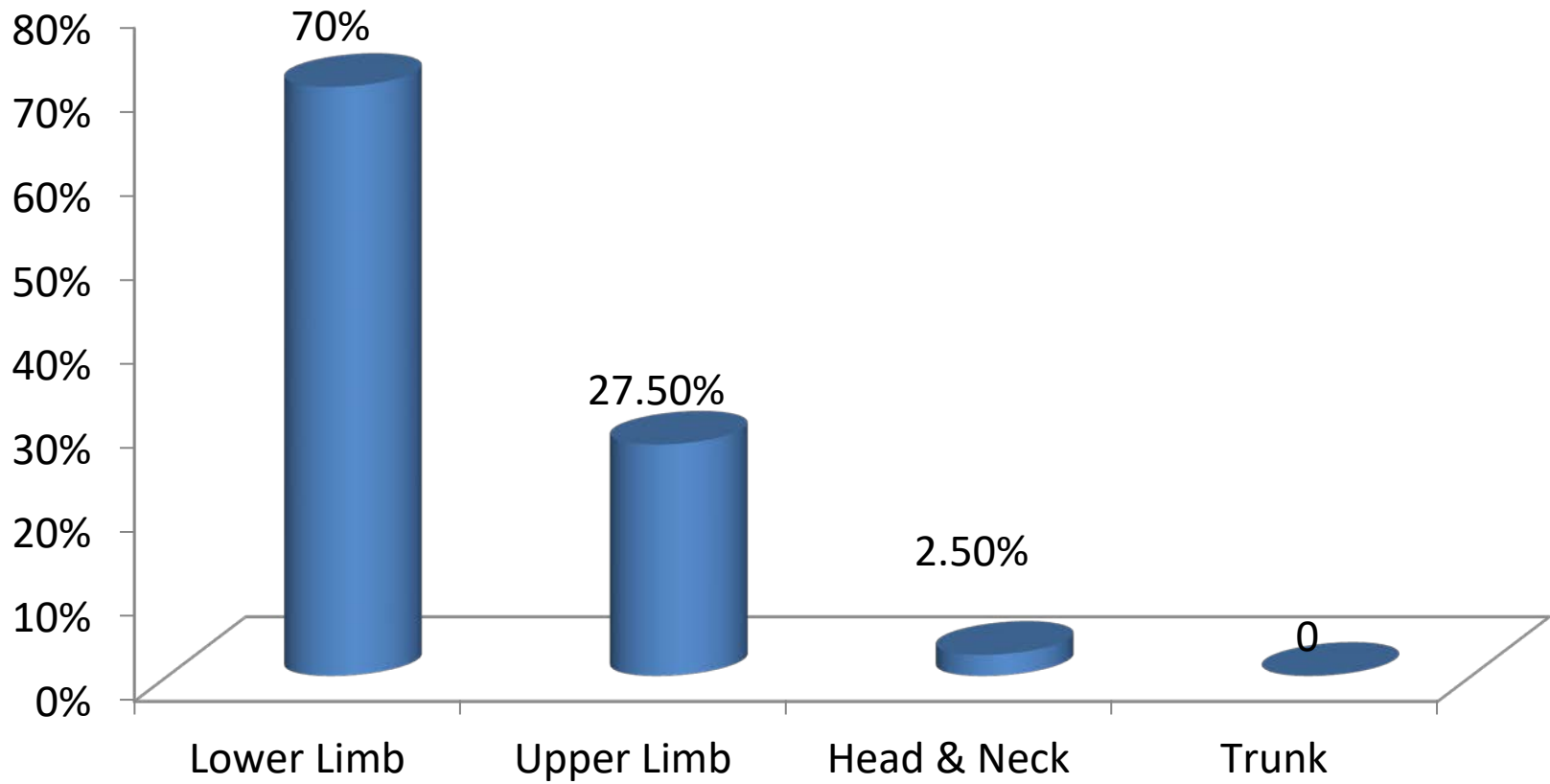


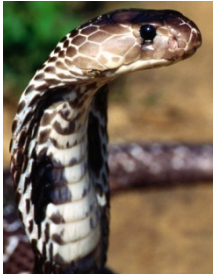
# Clinical Feature:





# Site Of Bite:



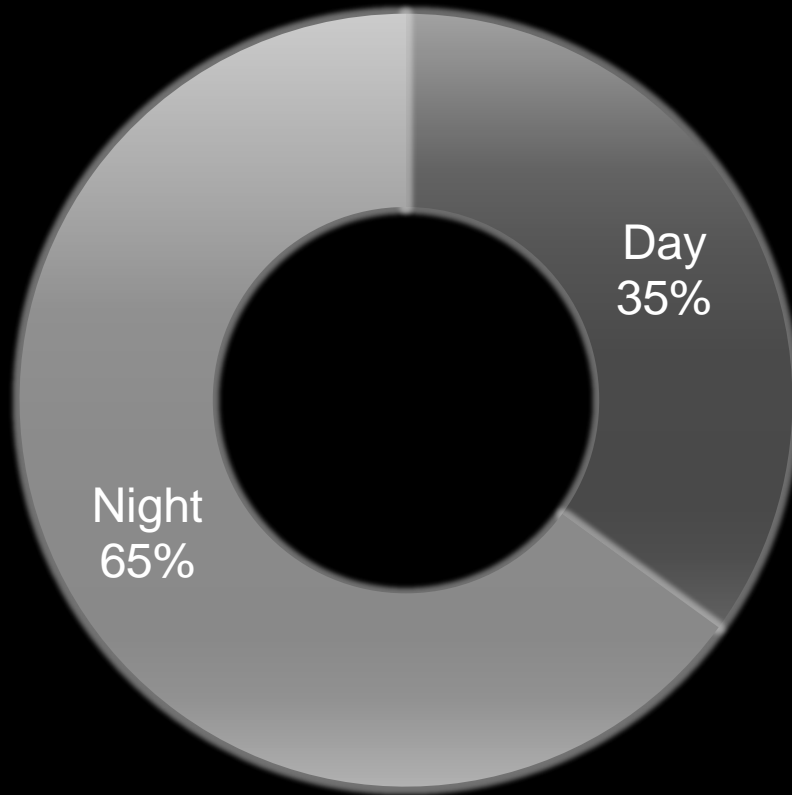


# Occupational status

Occupation	Total No(n=40)	Percentage
<b>Farmer</b>	<b>16</b>	<b>40%</b>
Housewife	12	30%
Student	6	15%
Business	4	10%
Day labor	1	2.5%
Service	1	2.5%
<b>Ohzas</b>	<b>2</b>	<b>5%</b>

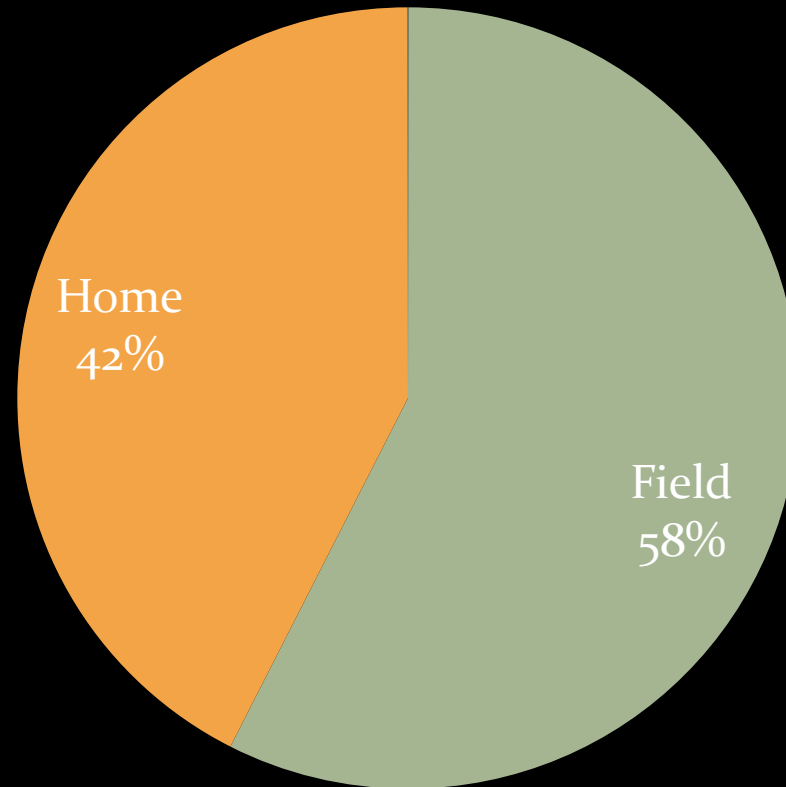


# Bite Time





# Circumstances Of Bite



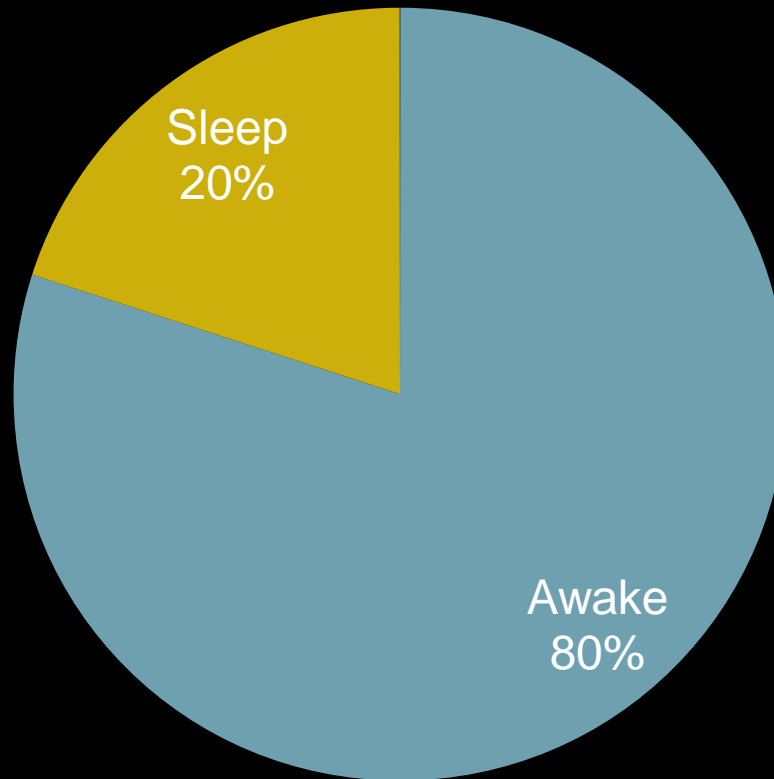


# Interval between Bite and Hospital admission :

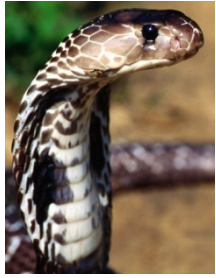
Time interval (Hour)	Number of Patient(n=40)
0-4	7
<b>4-8</b>	<b>12</b>
8-12	8
12-16	4
16-20	4
20-24	2
>24-48	2
>48	1



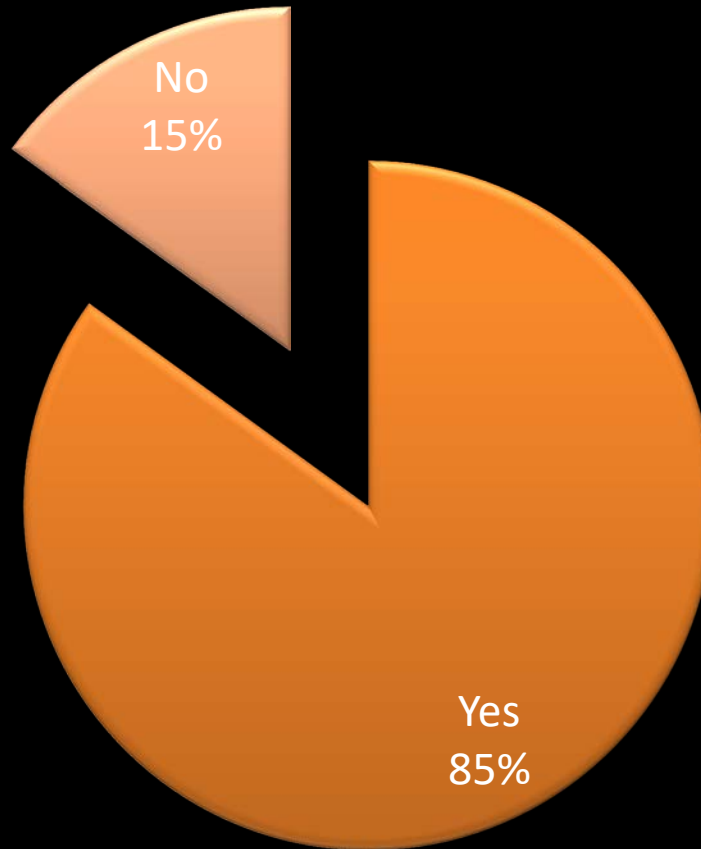
# Activity while bitten







# Treatment by Ohzas :





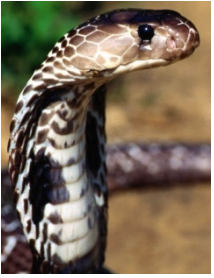
# Outcome of venomous snakebite patient:

- 92.5% of patient received Anti Snake venom after hospital admission.
- 22.5% patient required respiratory support.
- The case fatality rate was 12.5% after getting hospital admission.



# Limitation of this study

- Most of the snake was identified by patient through pictorial of book later
- Absence of facilities of venom antigen identification from swab of wound site, serum or urine by ELISA technique.
- PCR amplification and sequencing of snake DNA obtained from bite-site swabs is not available



## Discussion:

- Neurotoxic snakebite is a medical emergency and one fourth of them report respiratory difficulty which is similar to another two study (Faiz et al) and (Robed et al)
- Ptosis is common manifestation than broken neck or ophthalmoplegia which is consistent with other study.

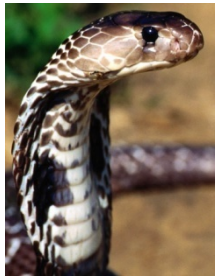


- Respiratory difficulty is the late consequence of neuroorological snake bite patient which was not observe other study ( Alam et al)
- 85% patient received medication from Ohzas which was more in number with the study (Probal et al )in2014
- Lower extremities (70%) were the most common site of bite which was consistent with other study



# Conclusion

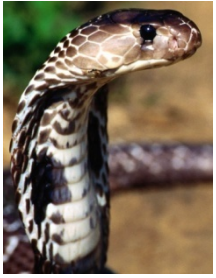
- It is predominantly a problem of rural and peri-urban area.
- Most of the fatalities are due to the victim not reaching the hospital in time and waste their time by going to traditional healers.
- Attention should be given to respiratory function and if needed support by Amboo bag while on transport.
- Availability of antivenom at primary health care centers and rapid transportation facility may change the mortality



Prompt treatment with Antivenom, auxiliary treatment and good management can save valuable life

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This is our Goal



THANK YOU!

