

“ Snake bite - what to do” -

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In the last seventeen years(since 2007), I have attended numerous discussions about snake bites, speaking in training classes, public awareness, etc. This issue is still not clear to people of all classes in the society. I have seen the lack of clear idea in the medical college teachers, new medical graduates, doctors, high-ranking employees, teachers, students, general people at large. Even people who have started a science movement (on Snakebite awareness) fall into this category.



Class at ATI,Kolkata.

In a class a few months ago, I was talking to a group of school teachers and a few school inspectors about snakebite. One teacher said that they have been running a science movement for many years, including raising awareness about snake bites. He said himself at the end of that one-hour class that there had been so many misconceptions. We have also experience of treatment of snake bite cases in the last few years,in general, it is becoming difficult to treat, for the misconceptions that educated people have known for centuries. That's why when it comes to what to do and what not to do when bitten by a snake, first of all, don't sit around with the ideas that have been around for ages. The first step is to do what the hospital doctor wants to do for your patient. The first goal of any physician is to heal your patient. No doctor will get any reward for harming your patient.

Now I shall tell you one by one what to do if someone is bitten by a snake, and what cannot be done. If someone or you find yourself bitten by a snake or something unknown; call someone nearby and report the matter. If it is dark, ask them to bring a torch as soon as possible. Whoever is bitten, he will sit still. Others will try to see if there are any snakes in the vicinity for a minute or two. Don't waste time looking for or killing snakes.

Let me say here, in the current treatment method, there is no need to recognize snakes for the treatment of snake bites. The doctor who treats snakebite cases, looks at the symptoms of the disease. Therefore, it is better not to waste time searching for the snake. If you find a snake, if any snake expert is present there, try to know the correct identity of the snake from the expert only. Never kill or catch a snake, never bring it to the hospital. Many a times it has done the opposite not any good.

There is no need to "ligate", which has been going on for ages. Binding or putting a tourniquet does not prevent spread of venom. In this too, the opposite has happened many times.



Complication of Ligature.

The bite site does not need to be washed or cleaned with any medication. The dog bite area is said to be thoroughly washed with soap. It has given rise to the misconception that even a

snake bite must be washed; This is a completely wrong idea. Venom spreads more quickly when washed or rubbed. If the hand is bitten, quickly remove the ring, bangle, bracelet, etc. After a while, if the hand or finger becomes swollen, all the jewelry can be dangerous. If possible; (We got better results when we had sent victims from the health center to a higher hospital), let someone in the hospital know over the phone that a snakebite patient is going there.



Rapid swelling after venomous bite.

If there is an ambulance nearby, call. If you have the slightest suspicion, do not delay for an ambulance, put the injured person on a motorbike and drive to the nearest primary health center. dayalbm@gmail.com



Motorbike Ambulance.

Most people do not have a clear idea about the nature of this primary health care Center. First of all, there should be a doctor in that health center round the clock. There must be a system of patient admission. Any primary health center in West Bengal, where those two things are guaranteed, go there for the treatment of snake bites. In case of any other disease, the treatment system in the big hospital of the city may be better, but in snakebite cases, the treatment at the village health center is always good. Because, every minute is important in case of snake bites. If it takes more than fifteen minutes to get to the big hospital in the city, that can be fatal. However, if a snake bites within a few km of a rural medical college like Medinipur, Bankura or Burdwan, then it is possible to reach those hospitals quickly.

And it is very important to be careful about one thing; under no circumstances should an beaten person ride a bicycle or motorbike himself. In the first case, the body is subdued, but after the bite of some snakes (Cobras), the limbs will become numb within fifteen to twenty minutes. In that case bad accidents can happen. Exercise, like cycling, speeds up the blood circulation in the body and spreads toxins (venom).

I often have to answer a simple question. What is the primary treatment (First Aid) for snake bites? The answer is, in the conventional sense, there is no first aid for snake bites. After the bite, the only thing to do is to rush the injured to the hospital without panic.

Here are two more things to keep in mind. Do not try to remove the venom by cutting or sucking. Do not apply any stains or plants on the bite site. Do not take any Herbal or “totka” medicine. Do not waste a single minute by taking advice of a faith healer. Do not listen to anyone's advice except the hospital doctor. Even non-medical staff at the hospital can increase the risk by misleading you.

After the infusion of the initial antivenom (ASV) etc., if the doctors feel that the patient should be taken to the city for special treatment at a higher hospital, they must send with a written referral letter. If it is not taken, treatment at the next hospital may be disrupted. When a Snakebite patient goes to the hospital, there are a few specific tasks for the person with the patient. Make sure the patient does not move too much. Walking or running will be dangerous.

Date by Referring M.O. প্রেরক চিকিৎসকের অনুমতি তথ্য (Examinations conducted, investigation done treatment condition of patient (শারীরিক পরীক্ষা, রোগ নির্ণয়ের পরীক্ষা, দেয় চিকিৎসা ও ভ্যাকসিনিক শারীরিক অবস্থা)	Remarks of Referring M.O./ Specialist of the Hospital প্রেরনকারী হাসপাতালের চিকিৎসকের/ বিশেষজ্ঞ চিকিৎসকের মন্তব্য
<p>A 45 yrs old female patient was presented to ER at 5:25am. Sudden onset of throat pain during smiling. Stopping of speech and drooping of upper eye lid since 1:30 am. patient was sleeping at home with musamta net and snoring black color snot.</p> <p>D.O.I - 14/07/2024 T.O.I - 1:30 am P.O.I - 10HACHUR</p> <p>B.B - ARCHANA MAHATA Alergic, swelling of speech. BP = 140/90 mmHg, SpO2 = 98% in RA. PR = 88/min, Chv = 88 mmHg. CVS = 88/55. B/L Ptosis. Throat pain.</p> <p>IPC Serial no. _____</p> <p>Signature / স্বাক্ষর _____ Name / নাম _____ Designation / পদ _____ Referring M.O./ Specialist / প্রেরনকারী হাসপাতালের চিকিৎসক</p>	<p>20 min HBLT → Clotted blood Tx given: D.V.F. F.N.S. (4.5ml) + 10 ml of ASV I.V. x 10 min for (i) Imm. Adrenalin (0.25ml) 10 min → Rapid intumescence 5% x 10 min (ii) Imm. T.T. (0.5ml) I.M. x 10 min (iv) Imm. Atropine (0.6 mg) I.V. x 10 min (v) Imm. Neostigmine (1.5mg) I.M. x 10 min (vi) milt. O2 inhalation (vii) Imm. Rantux (1 amp) I.V. x 10 min (viii) Higher center referral urgently Signature / স্বাক্ষর _____ Name / নাম _____ Designation / পদ _____ Referring M.O./ Of Referred Hospital প্রেরনকারী হাসপাতালের চিকিৎসকের/ বিশেষজ্ঞ Date / তারিখ. 14/07/2024 Time / সময়</p>

Refer Letter

Take a good look at what changes are there in the bite site; for treatment, the doctor will want to know those things. For example, whether there was bleeding from the bite site, whether the area was gradually swollen, or whether the skin around the bite site changed color.

Also talk to the patient to reassure him to boost his morale while going on the road. What the patient was talking about, or how long ago he was talking, is also important for proper treatment. Often the patient loses the ability to speak before reaching the hospital; In that case the doctor have to listen to the accompanying people and treat accordingly.

What to do if a snake bites? In a word, the answer is to take the patient to the nearest health center as soon as possible. What else not to do? Don't go to Ojha- Gunin's house, everyone will say that. I say, don't waste time trying to get to the big hospital in town.

As we have seen in the last few years of experience, the biggest problem is treating Kalach or Kalachiti snakes (Common krait). This snake is very mysterious. Usually at night, this snake bites in the open bed. Like a fine mosquito bite, almost painless bite, most people do not understand. These patients come to the hospital with various symptoms such as abdominal pain, sore throat and joint pain in the early morning.

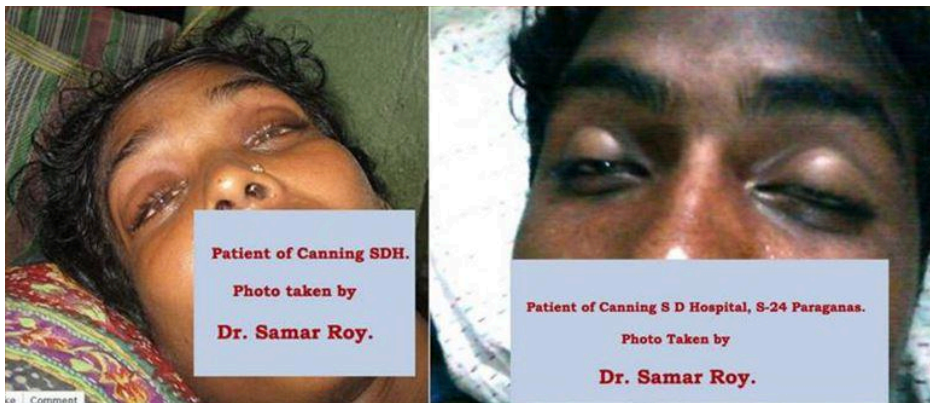
Hospital doctors can understand the symptoms of snake bites with their educated eyes. But because of the age-old misconception, often the patient or his family does not want to take it as a snake bite. The misconception that "the bite of a venomous snake means there will be two puncture spots" is deadly. Fine spots of Kalach (C krait) snake bites could not be found in most of the cases. Valuable time was wasted in searching for bite marks, etc. Due to the loss of this time, it was not possible to save the patient from some Kalach (C krait) snake bites, even with adequate ASV.

Rely on the doctor at the hospital or health center. It is safest to keep a patient admitted to a nearby health center quickly, rather than being confused by a snakebite staying at home. dayalbm@gmail.com

Patient history of a few Kalach(Common krait) snake bites

On the morning of August 14, 2011, a 32-year-old patient was admitted to Nilratan Sirkar Medical College & Hospital, Kolkata with abdominal pain. The patient was discharged after five hours of treatment from morning. Naskarbabu came to the National Medical College & Hospital at

12:10 pm due to some physical problems. Junior doctor Sreejita said the patient's bed number was RF1 -127. Stomach pain was treated again from noon to evening. Senior doctors visited until three in the afternoon. After 7 pm, Srijita went to the patient and saw the specific symptoms of the snake bite and was convinced that the patient was a Kalach (C krait) snake bite patient. She immediately infused ten Anti Venoms (ASV).



Bilateral Ptosis.

In the next morning the patient recovered. The senior doctors came and were surprised to see all this. Here is the question I ask everywhere during the training of doctors; “How could so many senior doctors from two medical colleges have mistaken a simple patient who was diagnosed by Srijita in just four months of house staff experience?”

Or if I say the opposite. What did so many senior doctors from two medical colleges not understand, how did a junior doctor get the disease for sure? No floating matter; She saved the patient from her own decision! Many have given many different answers. For example, the girl (Sreejita) is a village girl,she had seen before many such patients. Absolutely one hundred percent wrong answer. Sreejitha, a girl from central Kolkata, would visit the village a few times through the train windows only. I hear another answer too. The senior doctors are all very busy, they have not listened to the patient with their mind. They must be busy. But there are many junior doctors like this Sreejita to help them in their work.

There is a very beautiful Chinese phrase. "What the mind does not know, the eyes do not see." That there is a mysterious snake called Kalach (C krait), which usually bites in the open bed late at night. Moreover, in about ninety-nine percent of cases, the patient does not know that he has been bitten in his sleep. But most of the time the patient brings abdominal pain in the morning. It is not possible to know these news without training. Srijita had heard this in a class a few months ago.

But the bigger thing is, "timing". Time, time is the most precious thing in our lives. Srijita went to see the patient at bed number 127 at the right time. The most definite symptom of Kalach snake bite is Shivanetra or Ptosis. Two eyelids fall off. How long after the snake bites the eyelids will fall off, there is no hard and fast rule. It can happen after two hours, it can happen again after twenty four hours. We got it after 36 hours, even 42 hours. In fact, we do not know when the Kalach (C krait) snake had bitten at night. Also the same disease, brings different disease symptoms in different people. Maybe if Srijita saw that patient an hour ago, she would not get this Shivnetra (Ptosis).

This is not to say that the patient recovered the next day. Patients with Kalach or Kalochiti (Common krait) snake bites often bring pain in the abdomen. It also causes sore throat, difficulty in swallowing, joint pain, and even convulsions like epilepsy. Young children also have difficulty in breathing. These are the symptoms that patients come up with, in medical language they are called presenting symptoms. And the eyelids that are falling, that is, the Shivanetra (Ptosis) are findings. That means the doctors examined it and found it.

These two things need to be well understood during the treatment of Kalach (C krait) snake bites. This is to say that the patient is recovering after giving the first ten ASVs, in all cases the patient's presenting symptoms go away in a few hours. That is, the suffering for which the patient came, they left. But in

almost all cases, the Shivanetra remains. Doctors are often confused about this. Shivanetra (ptosis) stays for three or four days. I saw a hospitalized patient sitting and eating biscuits after receiving ASV. But noting that he has Shivanetra, the doctor is asking to give more ASV.

I have been devoting myself to spread this historic work of Srijita for the last 14 years. Later, many like Dr Moumita, Dr Alam, Dr Shuvendu or Dr Sk Rajeev have shown such impeccable success in small rural hospitals. But snake bites could not be brought till today, in regular teaching ,in our medical colleges.

It's been several years since I first showed a video of a Kalach (C krait) snake in my class. Then the story of Srijita. Since 2014, a new addition is Dr. Mukherjee, an ear, nose and throat specialist (ENT)of Alipurduar Hospital. I had talks with Dr. Yudhisthira Das, Specialist Physician of Alipurduar Hospital that day. Slow steady gentleman, such a man is rare. Dr Das is also a very busy doctor. But he has no excuse for neglecting things like snake bites. I sat in the super's room and started talking with twenty-two doctors. Later two more came. One of the advantages of evening classes is that everyone can come after completing the hospital work. I went on telling the history of Srijita's stomach ache patient. The eyelids may fall after two to twenty four hours. dayalbm@gmail.com

This time, the ENT surgeon of the hospital, who was sitting on the back bench, stood up and said that his patient had drooping of eyelids after 42 hours. Ah, forty-two hours? I had never heard of it before. Like that Srijita's patient, so far I ask in my class, what was the ENT surgeon doing with the snakebite patient? Nowadays many people can say the right answer. A woman in her forties was admitted with a complaint of sore throat. She was undergoing treatment for tonsillitis. Dr. Mukherjee has seen her four times before. In the fifth time, Shivanetra or Ptosis was noted. Immediately Dr. Yudhisthira

Das was called. They both treated for snake bite and saved the patient.

It is not a new news to us that a patient suffering from Kalach (C krait) snake bite was being treated for tonsillitis. Tapan of Mecheda also said sore throat at first. Tapan's news is published in the government training booklets of our state.

Patients with kalach (C krait) bites can also come with joint pain. The baby patients may also come with difficulty in breathing. If you suddenly have Shivanetra (Ptosis), you should always keep in mind that it can be a bite of Kalach snake (C krait).

Few years ago, a 37-year-old man was admitted to Jhargram District Hospital with back pain. He died three hours after his admission. As the treatment of back pain continued, the patient complained of abdominal pain. After taking medicine to reduce stomach ache, he said that he was having sore throat. The ENT specialist did not find any disturbance. After a while the patient starts shortness of breath. Half an hour after giving oxygen, the patient died. We were sure, that he was bitten by a Kalach (C krait) snake in the previous night.

What is the reason for so many misconceptions? Because of knowing half the truth. So what is the rest of the truth? There is a common belief that, if a venomous snake bites, it will have two bite marks. This is what is causing the most trouble. Hooded snake bites usually have two spots. There are basically two types of Hooded venomous snakes in our state (WB). Gokhro (Indian Spectacle cobra) and Keute (Monocled cobra) snakes. There is no hard and fast rule that there will be two spots on their bites also. There may be a single bite mark. There may be spots like a slit (incised wound).



Incised wound of a M.Cobra bite.

Chandrabara (Russell's viper) snake bites also have two or one spot. Hooded snake bites (Cobra) are not usually mistaken. As soon as the victims are bitten, severe burning pain starts in the place of the bite. It may have felt like a thorn in the dark or in the bushes. But if you are bitten by a snake with a hood, you will feel such a terrible burning pain with that little thorn spot that it is understood that it is not a normal thorn prick. Wasp stings or Scorpion stings also cause severe irritation (pain). But in this case, the place is almost not swollen. But when a person is bitten by a gokhro or keute, the place swells up quickly. The swelling gradually increases. The person who is suffering from this progressive swelling and severe irritation (burning pain) is rushed to the health center very soon. This is a horrible situation created after a snake bite, almost everyone knows or has seen. This time in the case of a silent killer like snake bite (by Common krait), when a doctor sees a strange symptom like falling eyelids, he says that a snake has bitten; it is very difficult to accept by lay people. dayalbm@gmail.com

Chandrabora (R viper) snake bites sometimes do not have much burning pain. The patient is late to come to the health center thinking that it was a thorn prick or some insect has bitten. Even after the bite of Chandrabora snake (R viper), the

place starts to swell slowly. But the patient neglects at first noting not swelling as fast as the bite of a hooded snake. Chandrabora snake bites cause blood clotting disorder in the patient's body. We have seen that, this blood clotting disorder started as early as half an hour after bite to four hours later. In case of blood clotting disorder, blood starts coming out from different parts of the patient's body. Bleeding occurs from the bite site of a snake or from an injection site. In addition, blood starts to come out from the base of the teeth, from the nose, from any old wound, spit and sputum. Blood is vomited when there is bleeding in the stomach. When treatment is delayed, the patient's kidneys gradually begin to fail. Blood in the urine is the first sign of kidney damage. As the urination gradually decreases, at one point the urination stops completely. Then dialysis is needed to save the patient. If the kidneys are severely damaged as the treatment was delayed after the bite of the Chandrabora snake (R viper), then it may not be possible to save the patient even by dialysis.



Blood in urine, in R.Viper bite.

In case of snake bite in Kalach (C krait) or hooded Gokhro-Keute (Cobra), if the treatment is delayed, the patient may stop breathing and die. In that case a ventilator machine is needed to keep the artificial respiration running. If ten, in some cases twenty ASVs (antivenom serum) can be injected into the patient before the patient stops breathing, the ventilator is no longer needed. Atropine and neostigmine, two very low-cost drugs, are very important for the bite of a hooded snake (cobra). Without these two injections, the patient may not survive if only ASV is given.



Life saving in Cobra bites.

In case of Chandrabora (R viper) snake bite also ASV has to be run very early; Kidney fails if late. Chandrabora snake bites in West Bengal for the last six-seven years are not getting good results even with enough ASV. Scientists have identified a problem behind ASV production. That is a matter of a little broader discussion. If you visit our Facebook page "West Bengal wants its own AVS", you will understand the problem of Chandrabora (Russell's viper) snake bites in WB.

After all, take home message is : if you feel bitten by a snake or something suspicious, go to the nearest health center as soon as possible. Follow the doctor's word there.

PS: A special instruction for taking a snakebite patient on a motorbike . Always a third person must sit behind the victim and keep him caught. Otherwise the victim may fall from the bite as his arms get paralysed in few minutes as venom spreads in his body.





Polyvalent ASV.