THE TRUE VIPERS

Levantine or Blunt-Nosed Viper (Vipera lebetina) - Range: along Tigris-Euphrates drainage in northern Iraq. Venom: hemorrhagic.


Kurdistan Viper (Vipera raddei kurdistanica) - Range: extreme northern Iraq.

Desert Horned or Sand Viper (Cerastes cerastes gasperetti) - Range: southwestern Iraq, widespread in Iraq east of the Euphrates. Venom: hemorrhagic.


Field’s Sand Viper (Pseudocerastes persicus fieldi) - Range: southwestern Iraq. Venom: hemorrhagic.

Viperid antivenoms: Antivenoms for the Levantine and Desert Horned Vipers are available from foreign sources and should be secured and given whenever possible. Treatment of severe envenomations causing marked hemorrhagic problems is difficult. Blood clotting abnormalities should be managed by a hematologist as administration of whole blood products to such cases may exacerbate hemorrhagic symptoms and DIC. Specific or polyvalent viperid antivenoms are the best and only specific treatment for envenomation by these snakes. Since systemic as well as local hemorrhage may be present, bites by these snakes should be field managed by application of wide-area, low pressure bandaging of affected extremity in order to prevent systemic spread of the venom. Indubitably the worst of these snakes is the Saw Scaled Viper which carries an extremely high mortality rate as a result of difficult to control systemic hemorrhage and/or DIC.

Note: Sand Vipers are referred to locally as "um grun" or "garna."

ELAPID OR NEUROTOXIC SNAKES

Desert Black Snake (Walterinnesia aegyptica)

The only land-based or terrestrial elapid in Iraq is a widespread species known as the Desert Black Snake. Its fangs are large and fixed in position and it is widespread on the ground in Iraq including outside of desert habitats such as the Mosul Region which is steppe-grassland. It has been discovered in Jarmos into the foothills of the Zagros mountains. In Iraq according to some researchers it is often confused with a harmless species known as "abrid" or "urbid." It can be found in buildings, playing fields, cultivated fields as well as open desert. The venom of this species is highly neurotoxic, related to that of cobras and coral snakes, and acts pre-synaptically. Any bite suspected from this species should be immediately field-treated by wrapping the bitten extremity with a wide-area, low pressure ACE or crepe bandage wrap. The best and only specific treatment is
antivenom which may be available from foreign producers. In the absence of antivenom, at the first sign of neurological symptoms, the victim should be sedated, electively intubated and placed on mechanical ventilation and supported for as long as respiratory paralysis exists. On return of spontaneous effort the victim should be carefully observed and slowly and carefully weaned. Immediately wrapping the affected extremity may buy enough time for evacuation to a medical facility equipped to support this patient but if respiratory distress occurs, field intubation and manual (BAG/TUBE OR BAG/MASK) ventilation may be necessary. In animal experiments subjects expired while still be injected intravenously and within 40 to 70 minutes when injected subcutaneously. Most snakebites are subcutaneous.

COBRAS IN IRAQ?

There are rumors which may be a hoax that the Kurdish people have imported and released cobras as a defense against Iraqui incursions in the north. We have no way of knowing if this is true. Cobras are both neurotoxic and tissue necrotizing but any suspected cobra bite should be treated by application of the ACE elastic bandage.

SEA-SNAKES-NEUROTOXIC AND ELAPID-LIKE

Hook-Nosed Sea Snake (Enhydrina schistosi)
Arabian Gulf Sea Snake (Hydrophis gracilis)
Others of the genus Hydrophis are found in Arabian Gulf Waters

Sea snake bites are rare and are endured primarily by fisherman when handling netted fish and bathers. Serious envenomations by sea snake bite is, however, extremely dangerous and potentially fatal. Sea Snake antivenom is manufactured in Australia for species in their waters. Other Australian elapid antivenoms may also be useful in sea snake bite. Field management is to immediately wrap the affected extremity with a wide-area, low pressure bandage (e.g. ACE or crepe-wrap). In the absence of antivenom, victims demonstrating any neurologic symptoms should be sedated. electively intubated and placed on mechanical ventilation until spontaneous respiratory effort returns which may take several days to a week or more at which time the victim should be carefully weaned from ventilatory support. See Local antivenoms and other expertise may be available from the Antivenom and Vaccine Production Center at the King Fahad National Guard Hospital, Riyadh, Saudi Arabia and from the Razi Institute in Iran.

References
For more snakebite related websites, please visit the index page located at:
Some additional caveats and points to consider:

1. There are harmless as well as venomous snakes in the region. Consider any snakebite venomous until medically evaluated as otherwise.
2. The best thing you can do is not get bitten. Protective clothing, footwear and gloves should be used at all times when there is risk of snakebite.
3. Venom is excreted in the urine. IV solutions, good hydration and voiding of urine will help to eliminate venom. Do not drink any water in the field but wait for solutions to be given intravenously, in the field or in the hospital.

THE SNAKEBITE EMERGENCY WEBPAGE SNAKEBITE EMERGENCY FIRST-AID INFORMATION
WHAT TO DO IF BITTEN BY A VENOMOUS SNAKE

Allow bite to bleed freely for 15-30 secs.

Cleanse and rapidly disinfect area with Betadine, assuming not allergic to iodine, fish or shellfish.

If bite on hand, finger, foot or toe, wrap leg/arm rapidly with 3” to 6” Ace or crepe bandage past the knee or elbow joint immobilizing it. Leave area of fang marks open. But first, if possible, apply hard direct pressure over bite using a 4 x 4 gauze pad folded in half twice to 1 x 1. Tape in place with adhesive tape. Soak gauze pad in Betadine solution if available and victim is not allergic to iodines, fish or shellfish.

Strap gauze pad tightly in place with adhesive tape
Overwrap dressing above and below bite area with ACE or crepe bandage, but not too tight. No tighter than you would use for a sprain. Make sure pulses are present. Wrap ACE (elastic) bandage as tight as one would for a sprain. Not too tight. Check for pulses above and below elastic wrap; if absent it is too tight.
Unpin and loosen. If pulses are strong (normal) it may be too loose.

Immobilize bitten extremity, use splinting if available.

If possible, try and keep bitten extremity at heart level or in a gravity-neutral position. Raising it above heart level can cause venom to travel into the body. Holding it down, below heart level can increase swelling.

Evacuate to nearest hospital or medical facility as soon as possible

Try and identify, kill and bring (ONLY if safe to do so) offending snake. This is the least important thing you should do. Visual identification/description usually suffices, especially in the U.S. and in regions where the local fauna is known. Local symptoms will alert doctors to whether the bite is venomous or not.

Bites to face, torso or buttocks are more of a problem.
ACE/crepe bandaging can not be applied to such bites. A pressure dressing made of a gauze pad may help.

Antivenom is the only and best treatment for snakebite and you must get as much as is necessary as soon as possible. Antivenom administration should not be delayed. Up to 20 vials may be needed to neutralize the effects of rattlesnake and other crotalid venoms in North America. Precise figures for venoms of snakes in the Middle East are not available but Israeli experts may have experience and should be consulted. Children always need more as envenomation is apt to be much more serious in a small person compared to a larger one.

PLEASE READ THE FOLLOWING DISCUSSION:

This website suggests the use of containment or sequestration of injected venom at or near the bite site using broad (3"-6" wide) compression bandaging such as crepe or ACE(tm)-type elastic bandage. This is the standard worldwide accepted first-aid treatment for bites by elapid snakes such as cobras, mambas, coral snakes and many Australian species. This method has delayed the onset of serious snakebite symptoms as long as 24 hours in Australia where victims of deadly bites were that far from medical assistance. The method remains controversial in the U.S. although a number of top snakebite experts have recently recommended its use in crotalid bites in printed references appearing in peer-reviewed journals. A recent study conducted at the Naval Medical Center (San Diego) and Loma Linda University Medical center in experimentally envenomated pigs indicates that the ACE wrap works to contain the venom and buy time to get to the hospital. A complementary study at Stanford, however, indicates that people are often unable to apply the wrap with sufficient pressure to work effectively. We recommend wrapping it tightly but maintaining a palpable pulse in the absence of precise means of measuring the under-wrap pressure (which should be 60 to 70 mm Hg or slightly less ... slightly below average diastolic blood pressure).

The use of containment/sequestration for certain types of North American pit viper (rattlesnake, moccasin and copperhead) bite is felt by some to increase the risk of disfiguring local tissue injury, which, while not necessarily life-threatening by itself may necessitate skin grafts and extensive repair and treatment once the acute, life-threatening phase of the event has passed. Some experts feel the spread of venom to vital organs can be life-threatening and that you have no way of knowing how life-threatening a snakebite is in the first moments of the event. Therefore, users of this method must recognize that there is a trade-off: containment as a life-saving measure at the risk of local tissue damage which while not necessarily life-threatening, could be disfiguring, painful and/or which could require prolonged and extensive follow-up treatment. We therefore urge readers who decide to use this method on ANY type of snakebite to do so as a life or death decision and to make this decision in pre-recognition of the above information. In addition some U.S. crotalid bites, particularly from large species, results in widespread damage to limbs even when bites were to digits and hands or feet. Thus the wide-area, low-pressure wraps can prevent the spread of venom and more widespread damage. Again some experts feel that this increases the intensity of more localized damage. So while
snakebite mortality without these dressings may be low, we have been appraised of too many unnecessary and tragic deaths and widespread disfigurement without its use and in general advocate its use if it is properly applied. Disfiguring local injury can be limited to a much smaller area compared to crotalid (pit-viper: rattlers, copperheads, cottonmouths) snakebite where this type of containment has not been used. Compression bandages are standard in Australia but these are mostly elapid bites although some have some SERIOUS local tissue or muscle effects as well. The venom of the King Brown Snake, a widely distributed species (Pseudechis australis) has as its main target: skeletal muscle tissue. Bites by Cobras which also have local effects also have direct acting cardiotoxins so containment can be life-saving in bites by these snakes. We strenuously oppose the out of hand dismissal of containment, used in Australia for nearly 20 years successfully, by a few experts in the United States. Denial of the value of this method by these U.S. experts has resulted in the death of professional and hobbyist handlers of cobra and other elapid snakes who erroneously were led to believe that the method should not be used because of their admonitions that local tissue destruction is its only effect and should NOT be used under any circumstances. A number of advocates of the method have been bullied and threatened by a few others who are opposed to this treatment because they say there is no proof it is of value in rattlesnake bite but they can point to no studies which disprove its worth whereas there have been animal studies done using Diamondback rattler venom on pigs and monkeys demonstrating that it serves to prevent spread of venom and suppress widespread swelling.

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