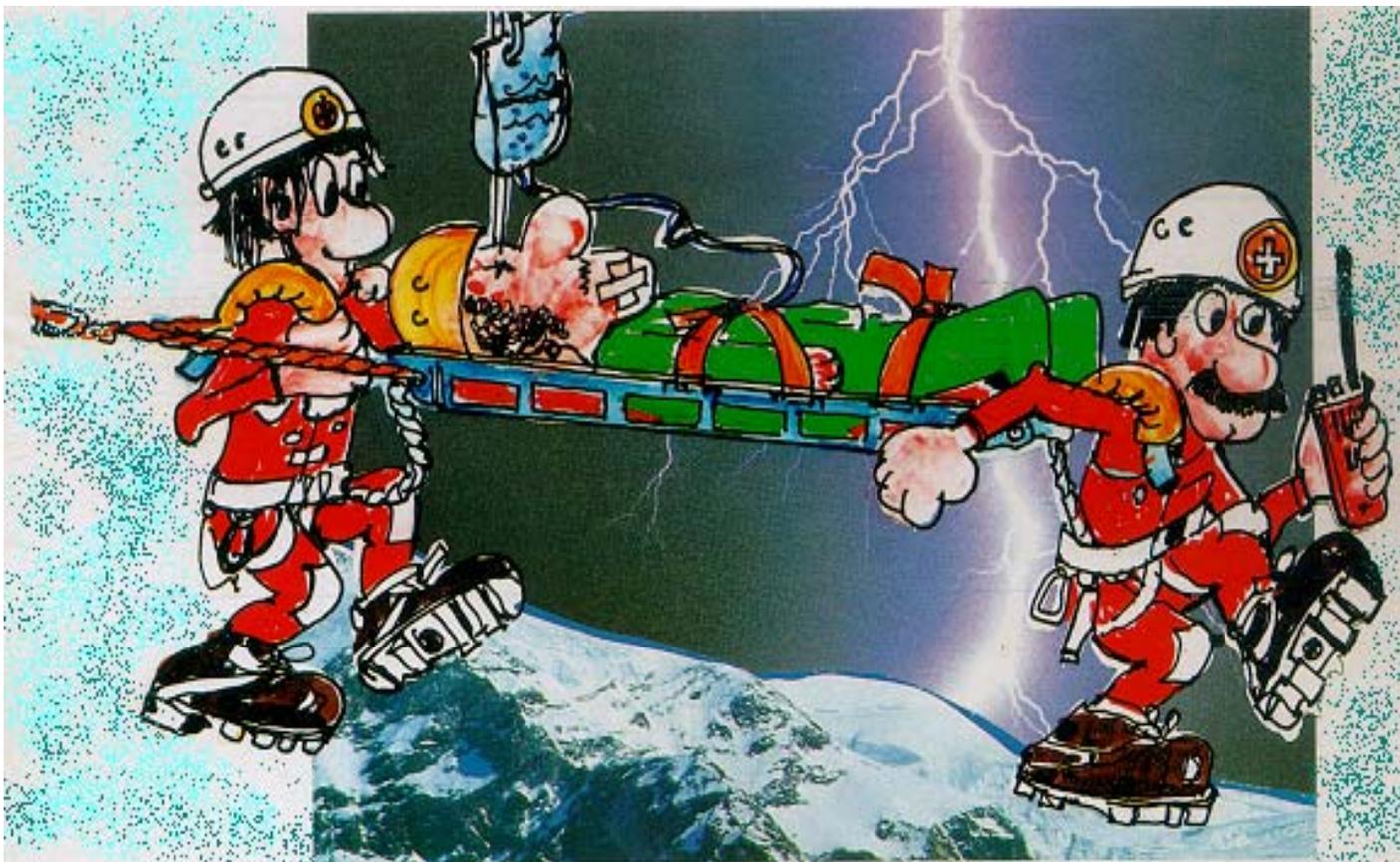




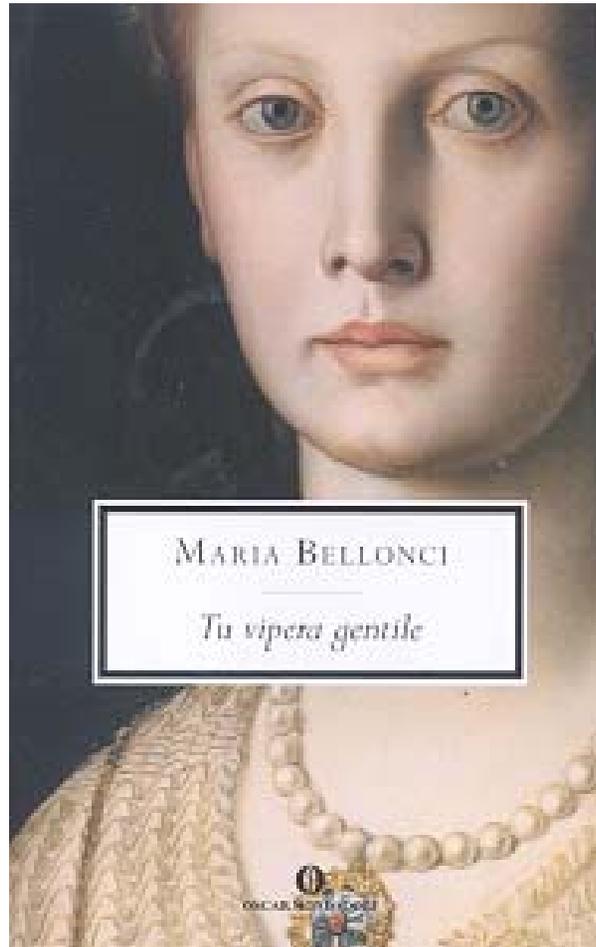
IV corso CNSAS - Ottobre 2010

Che brutta bestia!





Che brutta bestia!





Diavolo d'una serpe!

Wilderness and Environmental Medicine, **18**, 190–202 (2007)

CONCEPTS

Venomous Snakebite in Mountainous Terrain: Prevention and Management

Jeff J. Boyd, MBBS, UIAGM; Giancelso Agazzi, MD; Dario Svajda, MD; Arthur J. Morgan, MBBCh;
Silvia Ferrandis, MD; Robert L. Norris, MD

From the Mineral Springs Hospital, Banff, Canada (Dr Boyd); the Italian Alpine Club Medical Commission, Colgate, Italy (Dr Agazzi); the Mountain Rescue Medical Commission, Požega, Croatia (Dr Svajda); the Mountain Club of South Africa National Rescue Committee, Pretoria, South Africa (Dr Morgan); the Hospital Comarcal del Pallars, Tremp, Spain (Dr Ferrandis); and the Stanford University Medical Center, Stanford, CA (Dr Norris).





Diavolo d'una serpe

- All'anno nei file CNSAS 0.1% di casi/anno (su ~6500), in genere adulti
- La serpe può non essere una vipera
- La vipera può non aver inoculato veleno
- Il veleno di serpente ha proprietà mio-neurotossiche, sulla coagulazione e danno locale
- Indicatore affidabile: progressione dell'edema



Diavolo d'una serpe

- Trattamento: immobilizzazione e bendaggio

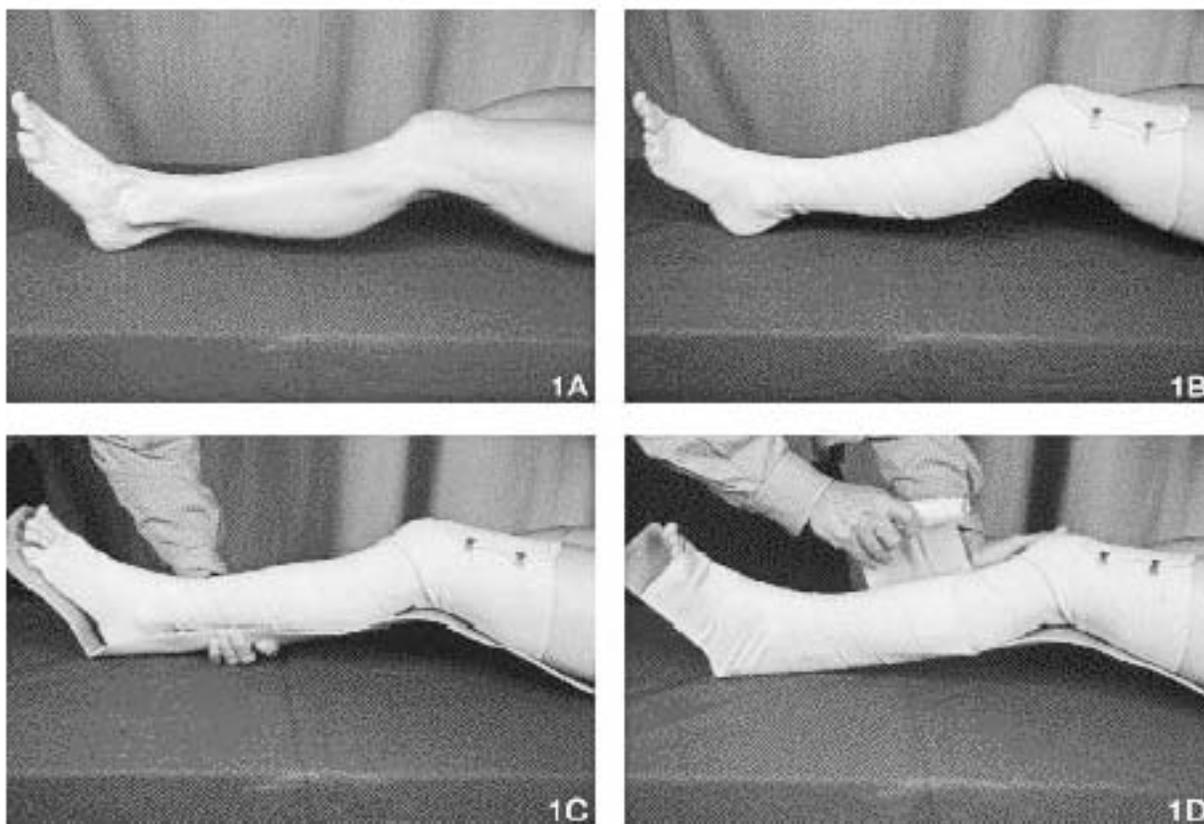
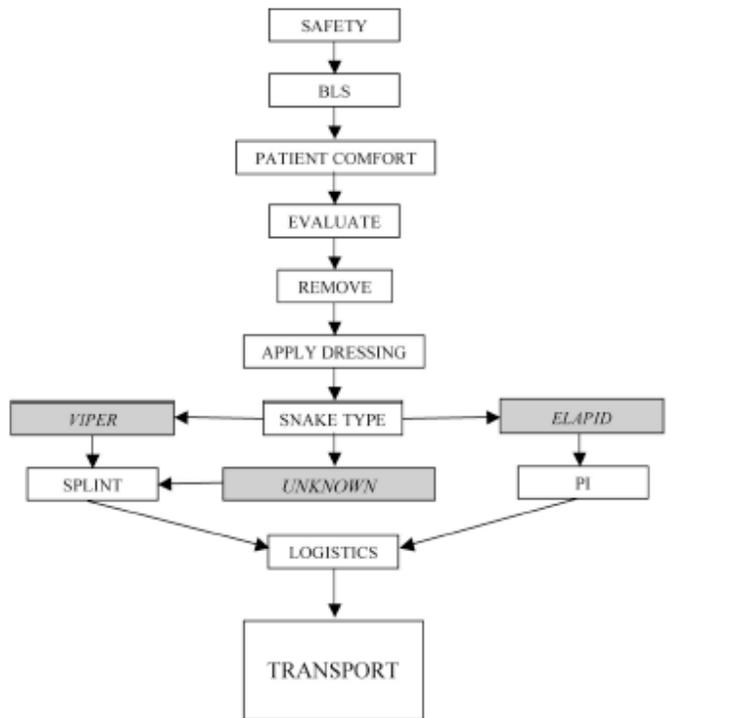
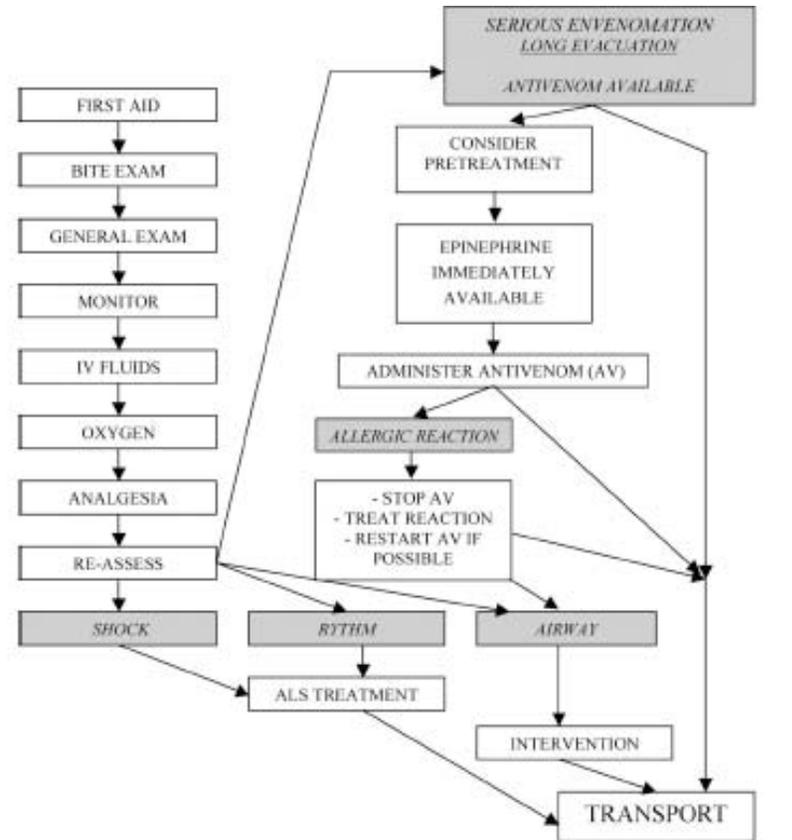


Figure 3. Pressure immobilization of the lower extremity using an elastic wrap and a SAM splint. **A,** Left lower extremity with simulated bite site to the top of the foot. **B,** The lower extremity is wrapped above the knee as high as possible with a compression bandage (W). **C,** A splint is placed behind the leg with the foot in a neutral position and the knee in a comfortable position. **D,** A second wrap is applied over the splint holding it firmly in place. (From Davidson.⁴⁸)



- | | | | |
|---------------------------------|--|-------------------------------------|---|
| SAFETY | - to victim & others.
- from snake & other hazards. | SNAKE TYPE | - identify.
- only if safe.
- zoom photography.
- caution with "dead" snake. |
| BLS = BASIC LIFE SUPPORT | - check airway, breathing & circulation.
- open airway, rescue breathing, chest compressions as needed. | SPLINT | - apply to whole limb if possible.
- reduces pain, swelling and bleeding. |
| COMFORT | - reassurance, warmth or cooling.
- rest, acetaminophen/paracetamol.
- clear fluids only. | PI = PRESSURE IMMOBILIZATION | - for non-necrotizing venomous snakebites only
- stretch bandage or clothing.
- wrap from lower end up limb, splint, secure with second wrap.
- tension same as for severe ankle sprain (approximately 40-70 mm Hg). |
| EVALUATE | - bite & secondary survey.
- mark edge, time & circumference.
- document all observations. | LOGISTICS | - mobilize transport and help.
- contact Emergency Department or Poison Center |
| REMOVE | - jewelry, tight clothing.
- no tourniquets. | TRANSPORT | - as soon as practical. |
| DRESSING | - dry gauze. | | |



- | | | | |
|---------------------------------------|---|--|--|
| FIRST AID | - check steps done, ongoing. | ALS DRUGS = ADVANCED LIFE SUPPORT DRUGS | - treat dysrhythmias in usual fashion
- epinephrine if suspect anaphylactoid reaction. |
| BITE EXAM | - bite, ooze, lymph nodes.
- local progress, circumferences. | AIRWAY | - support ventilations.
- automatic intubation if needed |
| GENERAL EXAM | - baseline cardiovascular, pulmonary and neurological systems.
- signs of systemic envenomation. | PRETREAT | - consider antihistamines (H1 & H2 blockers)
- consider epinephrine subcutaneously 0.25mg. |
| MONITOR | - vital signs
- oximetry, cardiac monitor when available. | EPINEPHRINE | - appropriate intramuscular dose (0.01 mg/kg up to 0.5 mg) immediately available. |
| IV FLUIDS = INTRAVENOUS FLUIDS | - two wide-bore.
- intravenous if necessary.
- crystalloid. | ANTIVENOM | - clinician, airway skills, equipment & drugs to treat anaphylactoid reaction.
- refer to product insert for dose.
- intravenous administration only |
| OXYGEN | - administer if available
- monitor clinical signs and oximetry. | TREAT REACTION | - epinephrine, antihistamines, steroids.
- airway intervention if needed |



Figure 2. Advanced field medical treatment algorithm.



Diavolo d'una serpe

- Osservazione e monitoraggio, pulizia ferita, antitetanica
- Se progressione verso shock ipovolemico: fisiologica e vasopressori
- Se progressione: Siero antivipera (Ph.Eur.5.5 – IgG equine) o Fab (ovine), solo ospedaliero e supporto funzione renale (rabbdomiolisi e emolisi) respiratoria cardiaca, anafilassi etc



La pechersonza



- Imenotteri: api vespe calabroni
- Veleno: soluzione acquosa di proteine vasoattive
- Reazione locale e reazione generale IgE mediata, sino allo shock anafilattico
- Terapia locale sintomatica, cortisonici antistaminici, prodotti appositi, ghiaccio ...



Anafilassi

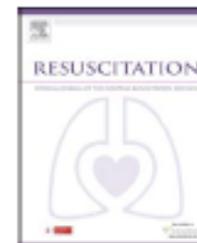
Resuscitation 81 (2010) 1400–1433



Contents lists available at ScienceDirect

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation



European Resuscitation Council Guidelines for Resuscitation 2010
Section 8. Cardiac arrest in special circumstances: Electrolyte abnormalities,
poisoning, drowning, accidental hypothermia, hyperthermia, asthma,
anaphylaxis, cardiac surgery, trauma, pregnancy, electrocution

Jasmeet Soar^{a,*}, Gavin D. Perkins^b, Gamal Abbas^c, Annette Alfonzo^d, Alessandro Barelli^e,
Joost J.L.M. Bierens^f, Hermann Brugger^g, Charles D. Deakin^h, Joel Dunningⁱ, Marios Georgiou^j,
Anthony J. Handley^k, David J. Lockey^l, Peter Paal^m, Claudio Sandroniⁿ, Karl-Christian Thies^o,
David A. Zideman^p, Jerry P. Nolan^q

Intramuscular (IM) adrenaline. The intramuscular (IM) route is the best for most individuals who have to give adrenaline to treat anaphylaxis. Monitor the patient as soon as possible (pulse, blood pressure, ECG, and pulse oximetry). This will help monitor the response to adrenaline. The IM route has several benefits:

- There is a greater margin of safety.
- It does not require intravenous access.
- The IM route is easier to learn.

The best site for IM injection is the anterolateral aspect of the middle third of the thigh. The needle for injection needs to be long enough to ensure that the adrenaline is injected into muscle.³⁶⁰ The subcutaneous or inhaled routes for adrenaline are not recommended for the treatment of anaphylaxis because they are less effective than the IM route.^{361–363}

Adrenaline IM dose. The evidence for the recommended doses is weak. Doses are based on what is considered to be safe and practical to draw up and inject in an emergency.

(The equivalent volume of 1:1000 adrenaline is shown in brackets)

>12 years and adults:	500 µg IM (0.5 ml)
>6–12 years:	300 µg IM (0.3 ml)
>6 months–6 years:	150 µg IM (0.15 ml)
<6 months:	150 µg IM (0.15 ml)

Repeat the IM adrenaline dose if there is no improvement in the patient's condition. Further doses can be given at about 5-min intervals according to the patient's response.

Adrenalina IV solo in casi estremi

Fisiologica quanto prima

Antistaminici II° linea

Cortisonici: sono un classico

Attenzione all'anafilassi bifasica – follow-up, antistaminici per due-tre giorni, cortisone a scalare