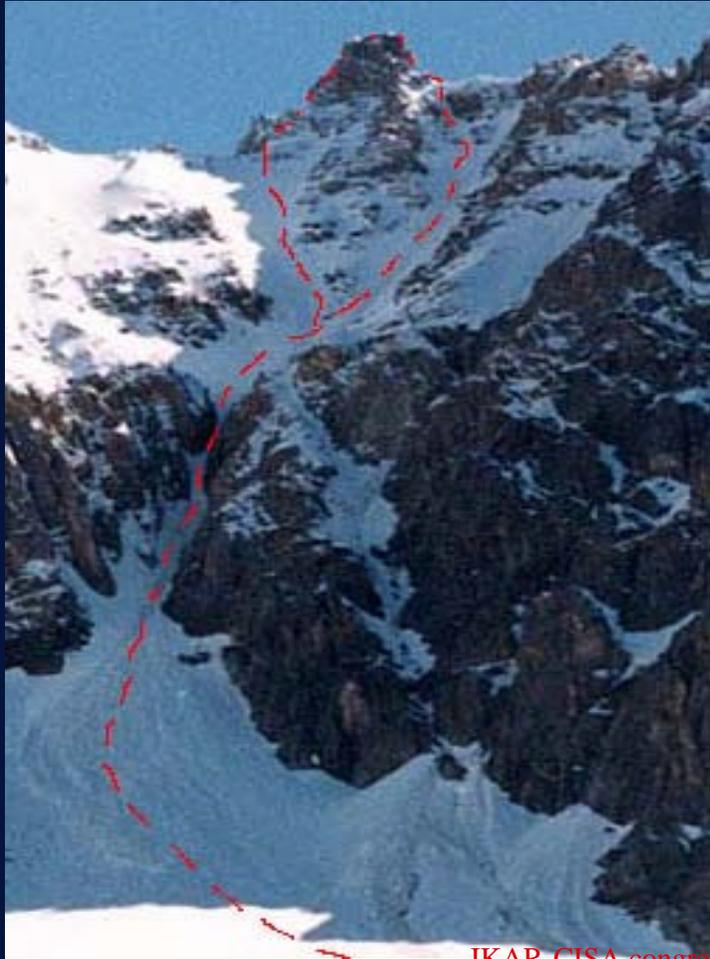


Rescue on Pic de la Font-Sainte North-East face (3387 m)



**Xavier Ledoux, MD
ANMSM
Secours en Montagne - France**

IKAR-CISA congress, Chamonix Oct 2008



Early in July

- Party of 3 climbers
- Lead climber falls off with a rock
- 3 alpinists fall 200 m in a couloir : rock and hard snow
- witness calls rescue service
- rescue team from Briançon :

Alouette III helicopter
2 guides / 1 emergency doc
flight time 25 minutes

First assessment : + 1:30 hr

Alt 2,900 m - steep hard snow (35 deg)?

Climber # 1 obviously dead



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limbs => immediate medical
care, rush to the hospital**



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Climber # 3 « less severely » injured : placed in horizontal position, oxygen. Stays on the spot with the 2 rescue guides



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Climber # 3 « less severely » injured : placed in horizontal position, oxygen. Stays on the spot with the 2 rescue guides

2nd helicopter called, flight time 25 minutes



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2nd rescue helicopter : Alouette III with 2 guides and 1 doc



flight time = 25 minutes

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+ 2:30 hr

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Assessment by 2nd doc

2 rescuers present

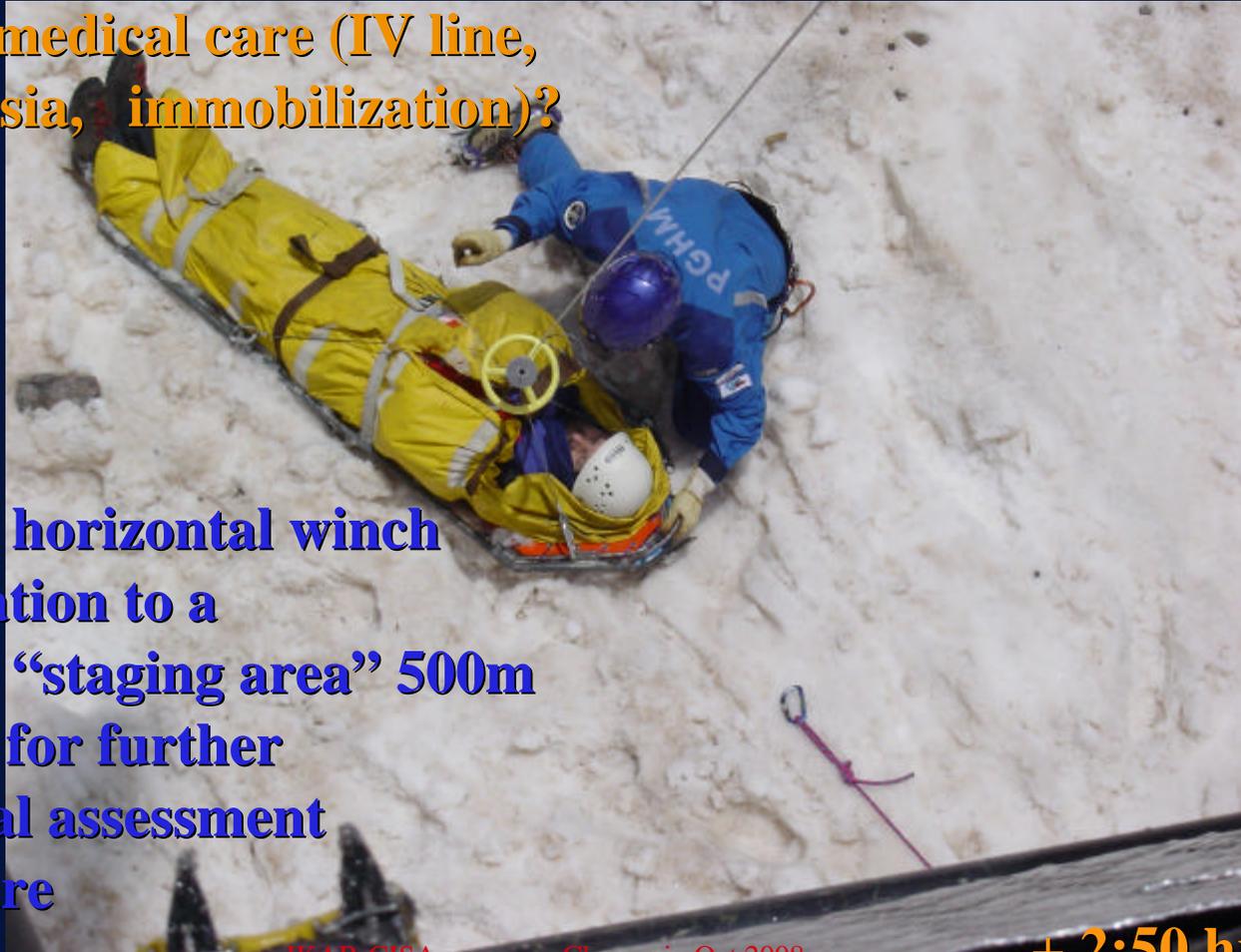
1 dead body (climber # 1)?

1 injured climber (climber # 3) :

- age 35
- conscious but sleepy
- obvious fracture of 1 femur
- suspected pelvic fracture
- normal breathing, no sign of thoracic injury
- BP 105 / 82, HR 125 bpm
- acceptable colour
- no obvious abdominal injury, *but*

quick medical care (IV line,
analgesia, immobilization)?
?

horizontal winch
evacuation to a
“staging area” 500m
lower, for further
medical assessment
and care



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+ 2:50 hr



Initial plan :

land patient + doc in a safe location at lower altitude :

- **for further medical action**
- **gives time to remove the rescuers and the dead body from the couloir, to the “staging area”**
- **Only then, fly patient + doc to the hospital**

retrieve the rescuers and the dead body last

**complementary
clinical findings**

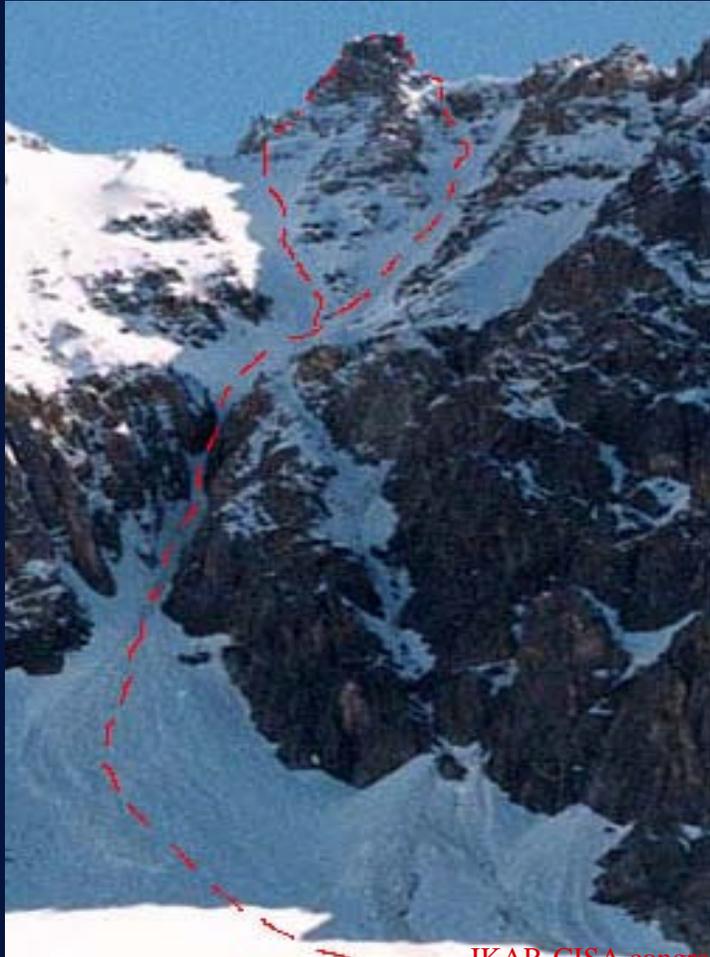
**no other
(apparent)
injury**

**epitympanic
temperature :
30,5°C !**

+ 3:05 hr

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Doc calls the rescuers by radio :

Benefit-risk discussion :

Hypothermia is getting critical, due to further cooling

the rescuers are not in a dangerous situation,

they could escape simply by walking down the slope

priority = evacuate casualty to the hospital

under continuous monitoring, being ready to treat

cardiac arrest !



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Uneventful flight

in the hospital at + 3:40 hr

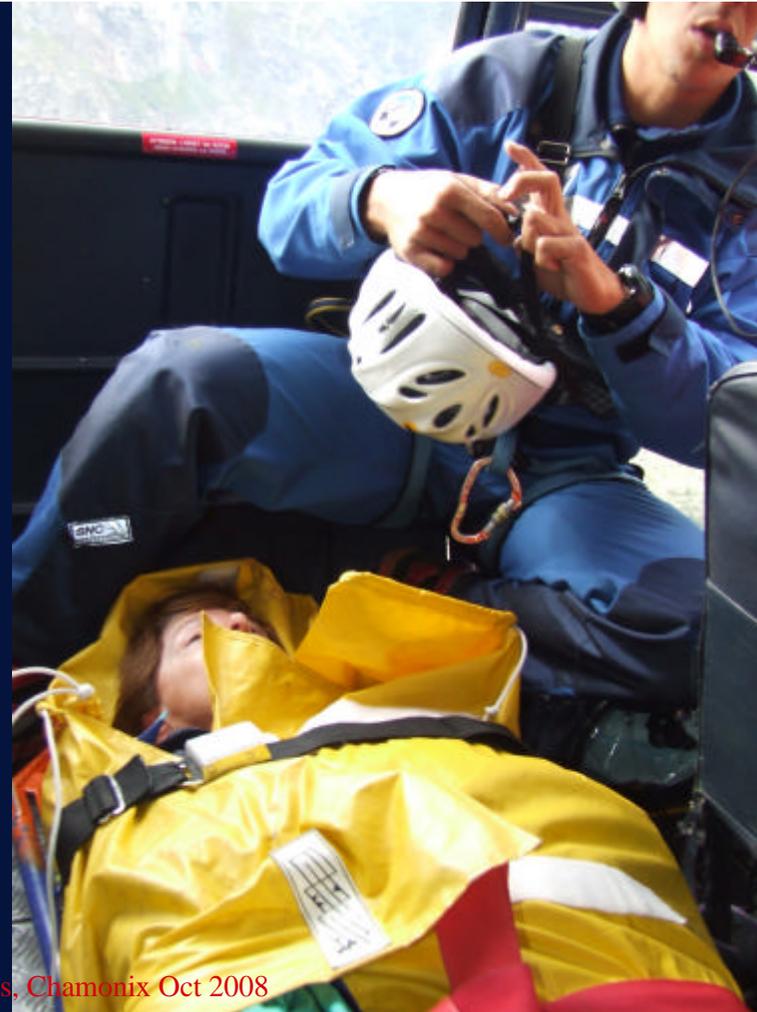
**final outcome :
full recovery**

Hypothermia in (summer) mountain casualties

**Always present,
especially at altitude**

**Very fast onset in severely
injured patients**

**Unexpectedly deep hypothermia
=> seek a severe injury**



Hypothermia in trauma patients :

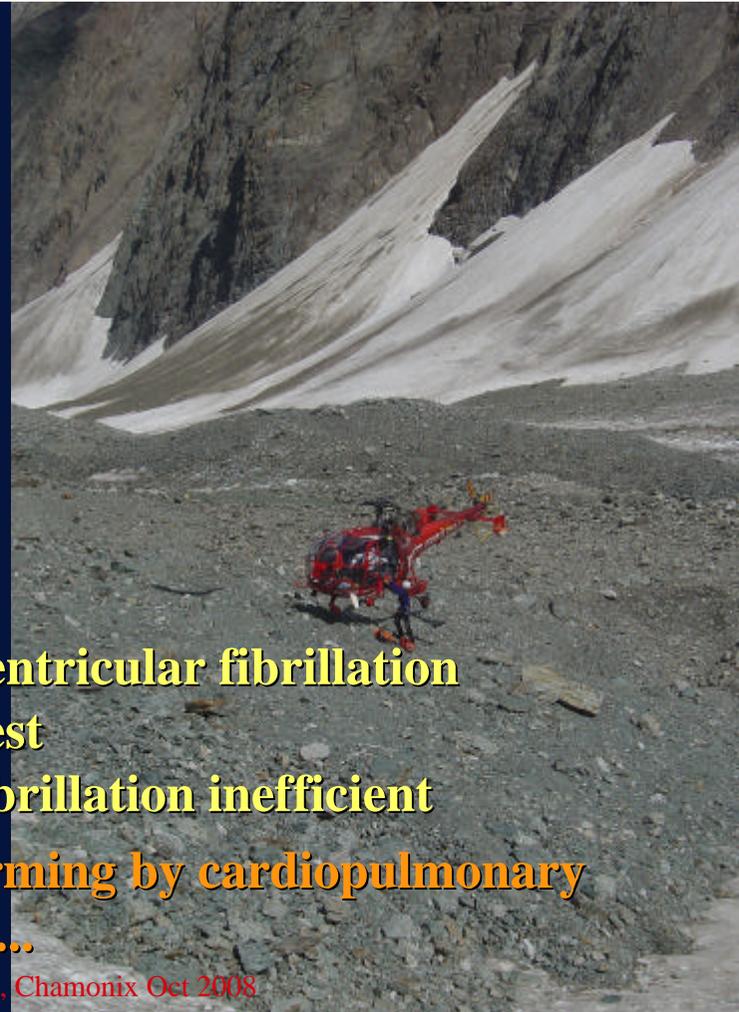
NO specific and reliable clinical sign

NO correlation with consciousness level

**starting at 32 ° C = hazard of ventricular fibrillation
= cardiac arrest
electric defibrillation inefficient**

Only effective treatment = rewarming by cardiopulmonary bypass / requires anticoagulation...

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Hypothermia in trauma patients :

Always think of it

**easy measurement :
epitympanic thermometer**

**consider the possibility
of further cooling**

**32 ° C and under =
major risk of arrest**

**medical help necessary
strategy and orientation
must be adapted**



!!! Prevention

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Thank you !



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