Systemic envenomations induced by Physalia physalis observed on the Atlantic French coast during the summer of 2011

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**Context**

**Aquitaine Atlantic coast**

1996: no envenomation by Physalia on the Aquitaine coast


2008: 40 victims (a collective case)

*Labadie M, Lambrot AL et al. Collective envenomation by Physalia physalis on the french atlantic coast.- Clin Tox 2010; 48(3) : 309*

2010: 154 victims over 3 months

*Labadie M, Groutil V et al. Epidemic Physalia physalis stings on the french atlantic coast during summer 2010.- Clin Tox 2011; 49(3) : 226*

Two deaths reported in the literature

*Burnett J.W., Gable W.D. et al.-A fatal jellyfish envenomation by the portuguese man-o’war.- Toxicon 27, 1989, 823*

**Moroccan Atlantic coast**

April 2011: 40 victims

*Windy M. Toxicologie Maroc. 2011; 9 : 15*

Bayonne, France 10 07 2011

A case of hemolysis with acute renal failure

PHYSATOX : Method

Monitoring scheme

• Monitoring period: 01/06/2011 to 30/09/2011
• Cases reported by the aid stations on the beaches to the SAMU and then to the Bordeaux PCC
• Data analysis by PCC and Invs

Case definition

• Benin case :
  – characteristic cutaneous signs
  – + pain
• Severe case :
  – Benin case
  – + General signs
    • unconsciousness and / or
    • chest pain and / or
    • hypo-or hypertension and / or
    • respiratory discomfort and / or
    • vomiting and / or
    • abdominal pain and / or
    • muscle cramps
Recommendations for lifeguards

• Remove the tentacles adhering to the skin to prevent increasing envenomation

Photos: Dr Jonquiert-Latarjet A.
PHYSATOX : Results
Epidemiology

- 885 cases reported

1st case (28.06)

16/07 peak with 94 cases reported

28/08 : end of the epidemic, sporadic cases thereafter
PHYSATOX : Results

Local signs

• Average age 18 ans
• Median age 13 ans,
• Sex ratio 1,5
• Local signs :
  – pain :
    • Immediate
    • Significant : NRS >7 for 68%
    • Average duration 2.2 h
  – Skin evolutive lesions

Photos : Dr Joncquiert-Latarjet A.

H0

H24

H48
PHYSATOX : Results

systemic signs : 15%

• 63% immediate
• 37% are delayed 15 minutes on average (n = 72)
• Gastrointestinal symptoms (abdominal pain, nausea, vomiting): 55%
• Respiratory symptoms: 34%
• Neurological signs (neuromuscular manifestations, paresthesia, hypoesthesia, headache, drowsiness, fainting): 46%
PHYSATOX : Results

• Severity : PSS1 85 %, PSS2 7 %, PSS3 8 %
• Medical care : 8 %
• No patient was hospitalized more than 24 hours
• No deaths
Conclusion

• Rarely serious, but some severe cases that still require careful attention.
• Risk of drowning
• And 2012? Phys@tox continues ...
• True emergent phenomenon?
• Causes?
Aknowlegements

- IFREMER
- CRS
- SAMU 33, 40, 64A
- Dr Coudreuse
- Dr Ricard
- Dr Joncquiert-Latarjet
- Dr De Haro
- InVS (DSE)