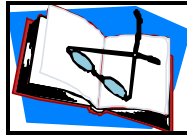


# Jellyfish Sting Newsletter

## No. 22

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### Significant Papers Published



1. Fisher A.A. Aquatic dermatitis, Part I. Dermatitis caused by coelenterates. *Cutis* 64:84-86, 1999.

A brief review of the cutaneous eruptions caused by coelenterates. The principles of treatment section is somewhat out of date. The author still advocates the use of alcohol and meat tenderizer as inhibitors of nematocyst rupture.

2. Hadok J.C. "Irukandji" Syndrome: a risk for divers in tropical waters. *Medical Journal of Australia* 167:649-650, 1997.

This brief paper is a discussion of the fact that *Irukandji* Syndrome can mimic decompression illness in bathers.

3. Fenner P.J., Heazlewood R.J. Papilloedema and coma in a child: Undescribed symptoms of the "Irukandji" Syndrome. *Medical Journal of Australia* 167:650, 1999.

A description of 7-year-old child who developed *Irukandji* Syndrome with papilloedema and unconsciousness. This little boy was treated rapidly and successfully.

4. Bloom D.A., Burnett J.W., Hebel J.R., Aderslade P. Effects of verapamil and CSL antivenom on *Chironex fleckeri* (Box-jellyfish) induced mortality. *Toxicon* 37:1621-26, 1999.

Ovine antivenom prolonged survival in mice challenge with intravenous *Chironex fleckeri* venom over a limited dose range. L-verapamil enhanced the beneficial effect of ovine antivenom. This data suggests that there may be an, as yet undefined, optimal antivenom dose for humans and that L-verapamil, used in combination with antivenom is an effective agent. It is essential that the experiments using for verapamil employ the L-isomer, the active agent. The discussion within this article gives a succinct summary of the dispute on the use of verapamil for jellyfish stings.

5. Edwards L., Luo E., Hall R., Gonzalez R.R. Jr., Hessinger D.A. The effects of Portuguese man-

of-war (*Physalia physalis*) venom on calcium, sodium and potassium fluxes of cultured embryonic chick heart cells.

Portuguese Man-of-war venom markedly increases calcium ( $^{45}\text{Ca}^{2+}$ ) influx into primary, cultured, embryonic chick heart cells. This action is dose-dependent, but is unaffected by organic calcium blockers (diltiazem, verapamil, nifedipine, nimodipine and mibefradil). On the other hand, certain trivalent ( $\text{La}^{3+}$ ,  $\text{Gd}^{3+}$ ) and divalent ( $\text{Zn}^{2+}$ ,  $\text{Ni}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Mn}^{2+}$ ) metals inhibit venom-induced calcium influx. Sodium ( $^{22}\text{Na}^{+}$ ) influx into chick heart cells is also significantly increased by Man-of-war venom. Flecainide does not block venom-induced sodium influx. The efflux of the potassium analogue,  $^{86}\text{Rb}^{+}$ , from heart cells is also significantly increased by the venom. The venom, however, has little or no effect on rubidium ( $^{86}\text{Rb}^{+}$ ) or 2-deoxy-D-[2- $^3\text{H}$ ] glucose influx.

Another paper illustrating the fact that these jellyfish venom punched nonspecific "pores" in excitable membranes. The bulk of this study is certainly well done. Unfortunately, investigators used the racemic mixture of verapamil rather than the more active L-form.

### Book Chapters

1. Mianzan H. and Cornelius P. 1999. Cubomedusae and Scyphomedusae. In: South Atlantic Zooplankton (D. Boltovskoy ed.) BACKHUYS Publishers, Leiden. The Netherlands: 513-559.



2. Mianzan H. 1999. Ctenophora. In: South Atlantic Zooplankton (D. Boltovskoy ed.) BACKHUYS Publishers, Leiden. The Netherlands:561-573.

Good review chapters.

### Correspondences

1. Peter Fenner has written an article entitled The "Irukandji" Syndrome: a devastating syndrome caused by a North Australian jellyfish. An updated review with symptoms including cardiac failure will shortly be published, has an excellent review of the subject.



2. Phil Alderslade writes that storing tentacles of *Chironex* in buckets at 30-36°C results in disintegration first of the smaller nematocyst before the mastigophores.

3. Multiple correspondence concerning methods of treating jellyfish envenomations are received annually. None are controlled. Rodney C. Fryer of Flairpath Limited writes about his pump called Aspivenin Pump, which can be used an instant vacuum pump painlessly to withdraw poisons from envenomations through the skin. Another company, Prevor Laboratoire, is sponsoring a product called Diphoterine, a polyvalent washing solution supposedly effective against chemical burns which might be effective against jellyfish stings.

4. Swarms of *Aurelia* had been reported in Zanzibar, Sussex, England and the Island of Skye, Scotland during 1999. Increased numbers of *Rhizostoma octopus* were seen in Northwest England and around the Isle of Man this year.

5. Increased numbers of *Physalia physalis* were reported over Cornwall and the Scilly Islands in Great Britain this summer.

6. Cedric M. Yoshimoto from Honolulu writes that he has found that *Carybdea alata* stings can be counteracted temporarily with the use of hot showers. In correspondence with Dr. Yoshimoto, we pointed out that there was only one case that we noticed when lymphatic spread of erythema from *Physalia* was

reported. That case happened to be me and the temperature of the water was 41-42°C for 15 min from elbow to wrist. I seriously doubt if the hot shower that he is discussing is that severe, and further a trial of mildly warm to hot showers might be warranted.

7. Mike Schaadt, of the Cabrillo Marine Aquarium, has a jellies directory, which is a listing of individuals working with gelatinous, plantum, or public aquariums and research labs. Anybody wishing to be included in this directory can contact Mike at his address which is 3720 Steven White Drive, San Pedro, CA 90731. He states that *Aurelia* in California can hurt the oral cavity like "hot coffee".

8. Faisal Radwan, Lisa Ann Gershwan and I are publishing a paper on the venomous nature of *Chrysaora achylos*, which appeared this summer in Southern California between the middle of July and middle of August. To the best of our knowledge, this is the fourth known appearance of this animal.

9. Phil Aderslade reports that a lifeguard in Cairns mistakenly drank from a labeled container full of 4 day old *Chironex* tentacles and suffered luckily only a sore throat and some dyspnea.

10. The Wall Street Journal (corroborated by Dr. Thomas Heeger of St. Carlos University, Cuba City) reported that a December 15, 1999 swarm of *Aurelia* shut off 40% of the country's power supply.

11. A Boca Raton (Sea Lice, Inc.) firm is marketing for jellyfish sting pain. It contains papain and aloe. No controlled studies have been submitted showing efficacy. Another example of people trying to solve a difficult problem.

### JELLYFISH STING NEWSLETTER ON THE WORLD WIDE WEB

All Jellyfish Sting Newsletters from Number 1 to Number 22 are accessible on the WWW at

[Http://www.jcu.edu.au/dept/PHTM/ACTM/JFN/jfn.htm](http://www.jcu.edu.au/dept/PHTM/ACTM/JFN/jfn.htm)

This format allow the inclusions of colour images and links to other web pages.

The site is administered by the **Australasian College of Tropical Medicine** with Rick Speare as webmaster. Rick can be contacted by email at [richard.speare@jcu.edu.au](mailto:richard.speare@jcu.edu.au).

The International Consortium for Jellyfish Stings also begin place the  
**JELLYFISH STINGS  
NEWSLETTER**  
on the Department of Dermatology Web-page  
at the University of Maryland.

([www.som1.Umaryland.edu-->Clinical](http://www.som1.Umaryland.edu-->Clinical)  
Departments---->Dermatology

Also on this site: "To Report Jellyfish Sting" form  
Fax: +410 - 328 6098