Hot water immersion *v* icepacks for treating pain of *Chironex fleckeri* stings: a randomised controlled trial

To the Editor: I congratulate Isbister and colleagues[1] for performing a first aid randomised controlled trial on box jellyfish stings (a rarity in toxinology). The result is at variance with other studies on this topic (although they mainly involved North American jellyfish stings).[2]

I agree with the authors and the accompanying editorial[3] that the major weakness in the study was the up to 4-hour delay for treatment with hot water. Unlike the earlier bluebottle stings first aid study performed on the beach,[4] this study is performed in the emergency department of the Royal Darwin Hospital, when the pain severity was lessening. Pain severity was the primary study outcome: 25% of the study group had pain scores of less than 26 (hot water) or 20 (ice), which is minimal pain. Only 10% of the study group received opioid analgesia, compared with the results obtained by Currie and Jacups[5] in a 14-year prospective observational study of box jellyfish stings in Darwin, where 48% of patients received analgesia, including 30% of patients receiving narcotic analgesia.

The article by Currie and Jacups[5] also reported that 71% of patients received ice. The current trial[1] does not detail if ice (or heat) was applied to patients before enrolling in the study.

Moreover, Currie and Jacups[5] also reported that 84% of stings occurred in less than 1 m of water and most of the stings occurred on the legs. I am not sure how the temperature of the water in the bucket used for distal limb stings was controlled to maintain a temperature of 45°C. If not well regulated, then this would lessen the benefits of the heat.

In addition, I am surprised that the authors have not attempted to use their findings to push for a standardised approach to jellyfish stings in Australia. The Australian Resuscitation Council currently has different first aid advice for stings in the tropics compared with southern Australia.[3,6] These results would suggest that heat is equally effective as ice for box jellyfish stings. The authors were concerned about the difficulty in providing hot water as first aid, which is the same problem for southern Australia, where hot water is recommended.

Surely, it is time to standardise first aid for jellyfish stings in Australia.

Mark Little[1,2]

1 James Cook University, Cairns, QLD.
2 Cairns Hospital, Cairns, QLD.

mark.little@health.qld.gov.au

Competing interests: No relevant disclosures. ■

doi: 10.5694/mja17.00398

© 2017 AMPCo Pty Ltd. Produced with Elsevier B.V. All rights reserved.
References are available online at www.mja.com.au.

1 Isbister GK, Palmer DJ, Weir R, Currie BJ. Hot water immersion v icepacks for treating pain of *Chironex fleckeri* stings: a randomised controlled trial. *Med J Aust* 2017; 206: 258-261. https://www.mja.com.au/journal/2017/206/6/hot-water-immersion-v-icepacks-treating-pain-chironex-fleckeri-stings-randomised

2 Wilcox CL, Yanagihara AA. Heated debates: hot-water immersion or ice packs as first aid for cnidarian envenomations. *Toxins (Basel)* 2016; 8: 97.

3 Seymour JE. Are we using the correct first aid for jellyfish? *Med J Aust* 2017; 206: 249-250. https://www.mja.com.au/journal/2017/206/6/are-we-using-correct-first-aid-jellyfish

4 Loten C, Stokes B, Worsley D, et al. A randomised controlled trial of hot water (45°C) immersion versus ice packs for pain relief in bluebottle stings. *Med J Aust* 2006; 184: 329-333. https://www.mja.com.au/journal/2006/184/7/randomised-controlled-trial-hot-water-45degc-immersion-versus-ice-packs-pain

5 Currie BJ, Jacups SP. Prospective study of *Chironex fleckeri* and other box jellyfish stings in the "Top End" of Australia's Northern Territory. *Med J Aust* 2005; 183: 631-636. https://www.mja.com.au/journal/2005/183/11/prospective-study-chironex-fleckeri-and-other-box-jellyfish-stings-top-end

6 Australian Resuscitation Council. Guideline 9.4.5 — Envenomation: jellyfish stings. Melbourne: ARC; 2010. https://resus.org.au/?wpfb_dl.41 (accessed Sept 2017). ■