

Fatal envenomation by *Chironex fleckeri*, the north Australian box jellyfish: the continuing search for lethal mechanisms.

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A child with severe envenomation by *Chironex fleckeri* presented in cardiac arrest at a hospital between 15 and 20 min after the sting was sustained. Resuscitation was not successful. Objective confirmation of *C. fleckeri* as the cause of death is described. Four metres of tentacle contact in this case represents the smallest-measured fatal *C. fleckeri* sting that has been recorded so far.

The mechanism of this death was toxic and not allergic. The available clinical information suggests direct myocardial interference, but does not exclude a respiratory hypoxic element.

A more widespread venom-induced functional disruption of the cell membrane is postulated, with a resultant dysfunction in several vital organ systems that were acting in concert.

Early, vigorous and sustained resuscitation that is performed as a first-aid measure offers the best hope of prehospital survival after a massive *C. fleckeri* sting, which is the most explosive envenomation process that is presently known to humans. In-hospital resuscitation from unresponsive circulatory arrest should now involve intravenously-administered verapamil (or its equivalent) and additional box-jellyfish antivenom, while the patient is being monitored.

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