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The weever fish sting New in treatment

A.M. Toumanidis

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Doctor, Katerini, Greece

Τσίμπημα δράκαινας: Νέα στη θεραπεία

Περίληψη στο τέλος του άρθρου

Key words: Marine fish sting, Poisonous sea fish, Weever fish

There are few scientific articles dedicated to the treatment of weaver fish stings, most being case reports. The fish is found in the coastal waters of European and African countries from northern seas along the eastern coast of the Atlantic Ocean including the Mediterranean and Black Sea. The venom has a neurotoxic and a hemotoxic effect,¹ while it induces an immediate, severe pain. In rare cases, headache, nausea or systemic symptoms may develop, although the poison is not life-threatening. If treatment is not prompt, the pain increases in minutes, numbness occurs and edema begins to spread proximally.

Between May 15th 2000 and June 30th 2022, we treated 160 patients stung by weaver fish. Thirty five were men, 99 were women, and 26 children. The ages ranged from 12 to 67 years old. Out of the weaver stings, 153 were on the feet and 7 on the hands.

Treatment immediately began with an injection of anesthetic solution (1–2% xylocaine or lidocaine) directly into the puncture site. Usually, 2–5 mL of solution are enough to relieve the pain, but in the finger area no more than 2 mL can be injected. A small adhesive plaster stuck onto the injection point and corticosteroid ointment was liberally applied to the affected site. Additionally, we administered

systemic steroids, such as 5 mg methylprednisolone. Patients were instructed to rest and elevate the affected site for 6 hours. After 2 hours at home, the patients were instructed to take a light painkiller, such as paracetamol or mefenamic acid with repeated administration of systemic steroids and steroid ointment. Complete resolution of the symptoms occurs in 12–24 hours if the patient is able to receive treatment within 30 minutes of the sting. If the patient presents to the medical assistance in a period that exceeds 40 minutes and edema is already starting to develop, the method of therapy remains the same, but diuretics should be included and the time for full recovery is extended.

Out of the 160 patients that were treated with our technique, 136 cases (85%) had complete resolution of the symptoms within one day. Slower recovery and residual symptoms occurred in 24 cases (15%). Twenty three of these 24 patients had different degree of edema that was found on the sting's region. In one case, it presented as a development of necrosis on the little toe of a man. Eighteen out of the 24 patients were treated with warmth. The remaining 6 sought care within a period of over 30 min after the sting.

Various types of therapy have been used in the past to treat weaver fish stings: Compression bandages, tourniquets, incisions of the wounds and irrigation of tissue, injection of potassium permanganate, bath with hot milk, urine, hot water with added vinegar, ammonia, calcium, salt or other substance, even hot meat application.^{2–9} Today all the authors agree in the necessity and the success of the use of heat and consider it the main method of treatment. The use of antibiotics, antihistamines and opiates was also suggested. However, at the same time, no one denies that the application of cold packs or wrapped ice is also effective. According to these authors, the sting area should be immerse in a basin of hot water for 30 to 90 minutes. Indeed, the pain decreases within 10 minutes as the proteins of the poison destroy at a temperature of 40 to 42 °C. However, victims should be careful as there are

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cases recorded when the bitten area was burned after hot water immersion.^{10,11} All our patients who used heat for treatment had edema, and it took sometimes up to two weeks to resolve. Because of the severe pain syndrome, the victims of weever fish tend to get medical help as quickly as possible, but proper first aid is important. It consists in squeezing or sucking the poison from the wound, applying ice packs on the affected area or immersing it in cold water, in elevated position of the limb, giving painkillers and visiting the doctor quickly. The use of hot water or heat in any form is possible only in exceptional cases.

ΠΕΡΙΛΗΨΗ

Τσίμπημα δράκαινας: Νέα στη θεραπεία

A.M. ΤΟΥΜΑΝΙΔΗΣ

Ιατρός, Κατερίνη

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Μεταξύ του 2000 και 2022 αντιμετωπίστηκαν 160 ασθενείς με τσίμπημα δράκαινας, χρησιμοποιώντας αναισθητικό διάλυμα στο σημείο της παρακέντησης, κορτικοστεροειδές και ήπια παυσίπονα. Οι χειρισμοί αυτοί στις 136 (85%) περιπτώσεις είχαν απόλυτη επιτυχία. Σε 24 περιπτώσεις (15%) το αποτέλεσμα δεν ήταν ικανοποιητικό, λόγω λανθασμένης θεραπείας στο σημείο του συμβάντος ή καθυστερημένης επίσκεψης στον ιατρό.

Λέξεις ευρετηρίου: Δηλητηριώδες ψάρι, Δράκαινα, Τσίμπημα θαλάσσιου ψαριού

References

- ZIEGMAN R, ALEWOOD P. Bioactive components in fish venoms. *Toxins (Basel)* 2015, 7:1497–1531
- RUSSEL FE. Weever fish sting: The last word. *Br Med J (Clin Res Ed)* 1983, 287:981–982
- CAIN D. Weever fish sting: An unusual problem. *Br Med J (Clin Res Ed)* 1983, 287:406–407
- DAVIES RS, EVANS RJ. Weever fish sting: A report of two case presenting to an accident and emergency department. *J Accid Emerg Med* 1996, 3:139–141
- EMERSON D. Treatment envenomation caused by fish sting. *Emerg Nurse* 2012, 20:28–29
- WILCOX CL, YANAGIHARA AA. Heated debates: Hot-water immersion or ice packs as first aid for cnidarian envenomations? *Toxins (Basel)* 2016, 8:97
- ŁOPACIŃSKI B, BAK M, FISZER M, CZERNIAK P, KRAKOWIAK A. Poisoning with weever fish venom: A case report. *Przegl Lek* 2009, 66:464–465
- ATKINSON PRT, BOYLE A, HARTIN D, McCAULEY D. Is hot water immersion an effective treatment for marine envenomation? *Emerg Med J* 2006, 23:503–508
- ANONYMOUS. Weever fish sting. *Br Med J (Clin Res Ed)* 1983, 287:559
- JALIL KIA, QAYYUM MT. Iatrogenic thermal burn after hot water immersion for weever fish sting treatment: A case report. *Scars Burn Heal* 2020, 6:2059513120944045
- LEWIS CJ, WOOD F, GOODWIN-WALTERS A. Iatrogenic thermal burns secondary to marine sting treatment. *J Burn Care Res* 2020, 41:878–881

Corresponding author:

A.M. Toumanidis, 24 Iras street, Olympic beach, 601 00 Katerini, Greece
e-mail: toumanidisalex-dr@hotmail.com