

Compartment Syndrome From a Stonefish Sting?

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INTRODUCTION:

Marine stings are commonly seen in coastal areas which usually occur during daily activities such as diving, fishing and food-handling. The family *Scorpaenidae* are the most venomous fish in the ocean, sub-classified into three major subfamilies, the lionfish, scorpionfish, and stonefish by the morphology of their venomous spines¹. They are dangerous and even fatal to humans, as they may cause systemic and local toxicity.

REPORT:

A 35-year-old gentleman was stung by a stonefish over his right middle finger. He suffered excruciating pain, graded as Visual Analogue Scale (VAS) 10 with worsening swelling over right hand. His symptoms were not improved despite given adequate analgesia at clinic. He was then referred to hospital for compartment syndrome secondary to stonefish sting. Instruction was given to commence hot water immersion therapy while transferring to hospital. Clinical examination revealed a grossly swollen right hand with maximum tenderness over the dorsum of the middle finger. Otherwise, his wrist's range of motion (ROM) was full but finger joints ROM partially limited due to the swelling. His symptoms were progressively improved with hot water immersion therapy in ward.



Figure 1: Clinical Picture of Right Hand



Figure 2: Comparison with unaffected left hand

CONCLUSION:

Envenomation by *Scorpaenidae* fish can cause severe burning pain. Swelling is due to the toxin's ability to cause vasodilation and increase capillary permeability. These toxins are nondialyzable but are heat-labile. Hot water immersion therapy at temperatures between 42-45C for 30-90 minutes is generally safe and adequate². Knowledge of such marine stings is mandatory to avoid unnecessary and extensive fasciotomies. As surgeons, we need to know when not to operate too.

REFERENCES:

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