

# An Unusual Foreign Body In The Forearm: A Case Report

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## Abstract

We report here an interesting case of fish fin spine injury causing ulnar paresthesia. To our knowledge, this is the first described case in the medical literature. Various aspects of such unusual injuries are discussed in this report.

## INTRODUCTION

Penetrating injury by fish fins is not uncommon and often overlooked as they are usually considered harmless. However, many such injuries are of clinical significance because of the possibility of injuring significant structures and potential to cause infection. The reported case of ulnar paresthesia following fish fin injury is being highlighted for its rarity and discussion pertaining to the management of such injuries.

## CASE REPORT

A 32 year-old male presented to us with foreign body sensation in right lower forearm with paresthesia of ring and little finger of one day duration. The patient was on recreational fishing activity and sustained injury with a fish fin spine while removing fish from the fish hook. Physical examination revealed three puncture marks on lower third of ulnar aspect of right forearm. There was no neuro-vascular deficit distally and the hand functions were normal. The X-ray demonstrated a radio-opaque spicule like structure in lower third of right forearm on the ulnar aspect. (Figure 1)

## Figure 1

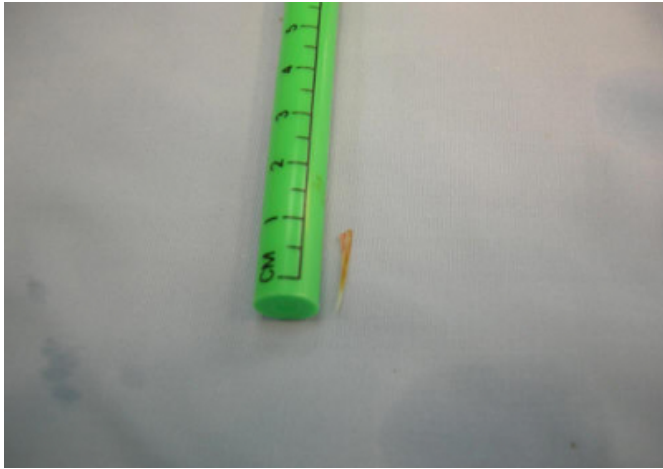
X-ray demonstrated a radio-opaque spicule like structure in lower third of right forearm on the ulnar aspect



The wound was explored under local anesthesia and sedation under microscopic magnification and fin spine was removed in toto. The length of the spicule was found to be 1.4 cm with maximum girth of 3 mm. (Figure 2)

### Figure 2

The length of the spicule was found to be 1.4 cm with maximum girth of 3 mm



Thorough irrigation of the wound was done and the wound was left open to heal secondarily. The patient recovered immediately from paresthesia and was discharged on oral prophylactic antibiotic therapy.

### DISCUSSION

Fishing is a common recreational sport around the globe. Though considered a harmless sport it can often be associated with various injuries. The injuries can range from trivial to significant depending upon the etiological factors, mode of injury, site of injury, environment and time of presentation.

Most of the clinically significant injuries from the fishes while fishing are because of the stings and envenomations. They are usually associated with excruciating pain and swelling of the affected site. They also have potential to cause infections. Rarely can they lead to severe systemic morbidity and often death of the victim. The treatment of these injuries usually involves cleansing of the wound and immersion of the wounded extremity in hot water (45 degrees C) which inactivates the venom and helps in pain control.<sup>1</sup> Supplementary analgesia, broad-spectrum antibiotics and tetanus prophylaxis are also recommended.<sup>1</sup> Specific antivenom is indicated for severe envenomations with systemic symptoms. Complicated wounds may require surgical debridement.

Many fish species have spines on the dorsal and pectoral fins which are used in defense against predators. These fish fin spines are bonified structures and are often sharp and long enough to cause severe penetrating trauma. Unusual cases of

myocardial perforation and radial artery tears have been described in the literature.<sup>2,3</sup> In the present case, the fin spine entered deep in the extremity and endangered the ulnar nerve leading to paresthesia. Such injuries emphasize the importance of careful evaluation of any such injury. All the penetrating wounds with a foreign body sensation need to be thoroughly assessed. The presence of foreign body, pain and unusual symptoms is an indication for exploration and should promptly be treated with complete removal of the retained spine followed by copious saline irrigation. The attempt for removal should not be delayed as later the ensuing fibrosis can make the removal difficult. Primary closure of the wound should be delayed till the risk of infection is over.

Plain radiography is useful in visualizing and locating spicule/other radio opaque foreign bodies. Ultrasonography can be helpful for localizing radiolucent foreign bodies. The CT and MRI may rarely be required. These penetrating injuries are also at high risk of developing acute soft tissue infections.<sup>4, 5, 6</sup>

The important reason is that sea, lakes, and streams harbors variety of microbes including *Vibrio* species, *Aeromonas hydrophila*, *Pseudomonas*, *Plesiomonas* species, *Erysipelothrix rhusiopathiae*, or *Mycobacterium* marine.<sup>7,8,9</sup> Failure to acknowledge the polymicrobial nature complicates the outcome. Hence, institution of early broad-spectrum antibiotic therapy is warranted. Tetanus prophylaxis is also necessary if history of immunization is absent or not complete.

### CONCLUSION

A fish fin spine can cause significant injury and is a potential health risk that needs to be recognized. Casual management of such innocuous looking injuries should strongly be discouraged and the patients should be referred to specialized surgical units for the management.

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