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Extremely Late Presentation of Catfish Spine Injury to the Hand

To the Editor:

A 48-year-old male, right-hand-dominant, was evaluated for stiffness in his left index finger. He stated that this was related to an injury he had 10 years before, when he was fishing in Galveston, Texas and caught a hardheaded catfish. He stated that the catfish's dorsal fin spine had struck him in his left index finger, and the finger had swelled, turned purple, and looked "angry"; but he did not seek medical treatment at that time. He was convinced that no part of the spine had been left in the finger.

Although the finger had felt stiff occasionally through the years following the injury, at the time he presented, this was getting worse. When he first woke up in the morning, he noted he could barely flex the proximal interphalangeal (PIP) joint past 90°. He had not had any locking, but the finger would occasionally "catch." He played guitar for a hobby, and felt that the stiffness was decreasing his ability to play.

An x-ray series of his left hand obtained during the first office visit was interpreted as normal, and did not show any obvious foreign body, erosions, or sign of bony injury.

Physical exam of his left index finger was also normal, and did not show any swelling, warmth, or palpable mass. Although flexion and extension was full, end-range of flexion was perceived by the patient as feeling tight. There was no tenderness at the A1 pulley, and the ligaments were stable.

The patient initially wished to try a cortisone injection and a course of hand therapy. For 6 months after the cortisone injection to the left index finger flexor tendon sheath, his symptoms were relieved, but they then returned to the prior level.

A repeat x-ray of the digit using soft-tissue technique showed an approximately 5 mm by 1.5 mm foreign body on the ulnar volar aspect of the proximal phalanx.

At surgery, a catfish spine fragment was removed after it was located in a mass of scar tissue between the digital nerve and artery on the ulnar aspect of the digit. Neither the nerve nor the artery had been damaged. Smooth flexor tendon gliding was inhibited by an enlargement of the flexor profundus tendon in the area of the PIP joint. The ulnar slip of the flexor superficialis tendon was excised, which markedly improved tendon gliding.

Gram stain and all cultures were negative, including for *Mycobacterium marinum*. Pathology tissue evaluation showed a foreign body measuring 0.6 cm in length and 0.2 cm in diameter and synovial fibromatosis with a foreign body type reaction.

The range of motion of his finger returned to normal postoperatively.

Acknowledgment

I thank Fred B. Kessler, MD, Houston, TX, for his assistance in treating the patient.

Janaleigh Hoffman, MD
Kaiser Permanente Medical Center
Fremont, CA

Wilderness Medical Society Consensus Guidelines for the Prevention and Treatment of Acute Altitude Illness—A View From the Other Side of the Atlantic

To the Editor:

In the last issue of the Journal we saw the publication of the Wilderness Medical Society (WMS) consensus guidelines on the prevention and treatment of acute high altitude illness.¹ It is hoped that this will be the first of a series of evidence-based guidelines published by the WMS covering aspects of remote medical practise. If the high standard of these guidelines can be maintained then the future looks stimulating—work of this caliber is bound to trigger fascinating discussions at both local and international levels! Given that the Union Internationale des Associations d'Alpinisme (UIAA) and the International Commission for Alpine Rescue (ICAR) have been producing similar guidelines for the past 15 years, one would also hope that this will stimulate a closer working relationship amongst the WMS, UIAA, and ICAR.² Since the WMS now has active representation on the UIAA and the High Altitude Section Editor of *Wilderness and Environmental Medicine* is based in the United Kingdom, it should be a straightforward task to build transatlantic bridges and develop a set of truly international consensus guidelines in the future.

For now I would just like to focus on the differences that exist between the guidelines issued on either side of the Atlantic . . .

- Having watched both the UIAA and ICAR medical commissions at work and studied the WMS guidelines I am impressed by how pragmatic, yet academically rigorous, these organizations have been in their work. However, to simplify things for the layman the UIAA

has chosen not to publish extensive references or to grade the quality of the evidence available.

- The WMS assumes that at high altitude, clinicians and layman are able to differentiate accurately between high altitude pulmonary edema (HAPE), high altitude cerebral edema (HACE), and severe acute mountain sickness (AMS), whereas the UIAA guidelines do not. Instead, the UIAA recognizes the limited diagnostic skills of the layman and acknowledges that a high altitude physician, whose brain is hypoxic, may also struggle to make an accurate diagnosis! The reality of this is seen most clearly in the UIAA's recommendation to routinely use 3 drugs—dexamethasone, nifedipine, and acetazolamide—in treating these conditions, while the WMS advocates a more tailored approach. Despite this difference I was relieved to see that both organizations agree on the appropriate drug doses for each illness.
- I welcome the WMS decision to include drug treatments that have little or no supporting literature. This may go some way to dispelling the myths that surround the use of agents such as ginkgo biloba and coca. For simplicity, the UIAA had decided not to include such substances. On balance this may have been an error, since hardly a week goes by without unfounded claims for their use being made in the mountaineering media.
- The willingness of the WMS to encourage those with AMS to remain at altitude is an interesting variant from the UIAA guidelines. This, I assume, reflects the expertise and facilities available at some of the highest ski resorts in North America, where evacuation can be arranged at short notice. In some parts of the world this would not be so advisable.
- Quite correctly, all of the prevention and treatment strategies presented by the WMS begin with non-pharmacological strategies, namely, a slow ascent for prevention and a prompt descent for treatment. However, the emphasis on pharmacological interventions makes me feel uneasy. Put simply, the nonpharmacological approach is not stressed enough. This is most clearly seen in the WMS's approach to AMS prophylaxis. Where the UIAA chose not to open this Pandora's box, the WMS has done so and endorsed the use of acetazolamide. When used by recreational and professional mountaineers, as opposed to rescue teams or possibly the military, this raises the complex question of whether we should endorse the use of performance-enhancing drugs in sport. This matter becomes even more complex when pediatric doses are quoted and one has to question the ethics of parental motivation in these cases. Why not simply spend more time and money, going slower and enjoying a non-drug-as-

sisted adventure? I was even more alarmed to see "Rapid Guided Ascent (eg, Mt Kilimanjaro)" listed as "high risk" and therefore justifying the use of acetazolamide. Of course such ascents are "high risk" but only because the guides, who should be responsible for their client's care and education, choose to ignore the basics of human physiology. Is it really the role of the WMS to legitimize this dangerous and unethical practice? Possibly the option of physicians offering firmer guidance on a safer ascent profile, or even using their mountain knowledge to suggest a lower but equally challenging objective, might be more appropriate.

In the future I look forward to greater transatlantic cooperation over the formation of remote medicine guidelines but suspect and trust that we will also enjoy a robust and stimulating discussion along the way.

David Hillebrandt, MB, MS
London, UK

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In Reply to Dr. Hillebrandt

To the Editor:

Dr. Hillebrandt has written a thoughtful letter to the editor in response to the recently released Wilderness Medical Society Guidelines for the Prevention and Treatment of Acute Altitude Illness. We appreciate his praise of the Guidelines and agree wholeheartedly that improved cooperation between the WMS, UIAA, ICAR, and International Society for Mountain Medicine (ISMM) is desirable.

Dr. Hillebrandt presented his opinion about several key differences between the approach taken by the WMS and that taken by the UIAA and ICAR. After careful consideration, we do not agree with some of his comments. We believe that grading the quality of evidence and publishing references is very important, because it allows improved substantiation of recommendations and claims. Readers should have the opportunity to understand the quality of the evidence underlying assertions, be in a position to assess the potential for bias, and be able to access supporting evidence if they so desire.