

# Embedded Freshwater Snail in the Hand Following Rafting Trauma: A Rare Case Report

Raphael Israeli MD<sup>1</sup>, Haim Izchak MD<sup>1</sup>, Gil Gannot MD<sup>1,2</sup>, and Amir Oron MD<sup>1,2</sup>

<sup>1</sup>Department of Orthopedic Surgery, Kaplan Medical Center, Rehovot, Israel  
<sup>2</sup>Hadassah Medical Organization and Faculty of Medicine, Hebrew University of Jerusalem, Israel

**KEY WORDS:** freshwater trauma, hand foreign body, surgical extraction, *Theodoxus jordani*, waterborne pathogens  
*IMAJ* 2026; 28: 460–461

Freshwater injuries often pose diagnostic challenges due to occult entry wounds and the risk of infection from environmental pathogens. We report a rare case of an embedded live-derived (biologic) foreign body, *Theodoxus jordani*, in the hand after rafting trauma on the Jordan River, emphasizing early imaging, prompt extraction, and environment-appropriate antimicrobial coverage.

### PATIENT DESCRIPTION

A 62-year-old man presented 48 hours after his right hand struck a submerged rock during rafting on the Jordan River. He recalled immediate pain but denied bleeding or laceration at the time of injury. He reported progressive swelling, erythema, warmth, and pain, without a visible entry wound on examination. Plain radiography readily demonstrated a spiral, radiopaque object within the soft tissues between the third and fourth metacarpals, without cortical breach or fracture. Although the radiographic silhouette suggested a calcified shell, definitive identification was deferred until extraction.

Under fluoroscopic guidance, a short dorsal approach centered over the maximal density was performed. The snail was extracted intact from the intermetacarpal soft tissue plane.

No osteotomy was required, and only minimal debridement was performed to limit contamination. No signs of purulence or devitalized tissue were detected; therefore, cultures were deemed unnecessary. After a thorough visual inspection, the specimen was conclusively identified ex vivo as *Theodoxus jordani*, a freshwater snail.

Postoperatively, the patient received oral empiric antibiotics targeting freshwater gram-negative organisms (notably *Aeromonas spp.*) alongside routine skin flora coverage. The regimen consisted of ciprofloxacin 500 mg twice daily and cephalexin 500 mg four times daily for 5 days. The patient was discharged the same day with wound care instructions and return precautions [1,2].

At follow-up, erythema and swelling regressed within one week; by two weeks the wound had healed completely with full range of motion and pain-free function. Informed written consent for publication, including the use of images, was obtained from the patient.

### COMMENT

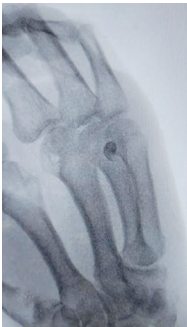
In this case report, we describe the rare occurrence of an embedded aquatic organism, *Theodoxus jordani*, within the soft tissues of the hand following blunt trauma in a freshwater environment. The management of this case highlights several crucial principles for treating

unusual environmental injuries [1,3].

A primary diagnostic challenge was the absence of a visible entry wound, which contrasted with the patient's progressive signs of inflammation. This discrepancy underscores the essential role of diagnostic imaging in any penetrating trauma with unexplained soft tissue inflammation, particularly following environmental exposure [1]. While plain radiography was sufficient in this case due to the radiopaque, calcified shell of the snail,

**Figure 1.** Radiographic and intraoperative documentation of a retained freshwater snail in the hand

**[A]** Plain radiograph of the right hand demonstrating a discrete radiopaque, ovoid silhouette consistent with a calcified shell lodged in the intermetacarpal soft tissues between the third and fourth metacarpals



**[B]** Intraoperative photograph showing dorsal extraction of the foreign body through a small incision

**[C]** The removed freshwater snail, *Theodoxus jordani*, following complete extraction



clinicians should maintain a high index of suspicion for radiolucent foreign bodies (e.g., wood, organic debris) [4]. In such cases, further imaging modalities like ultrasonography or computed tomography are warranted to prevent a missed diagnosis and subsequent complications [1,5].

A second key takeaway from our case is the importance of environment-specific antimicrobial prophylaxis. Freshwater injuries carry a distinct microbiological risk profile, most notably from pathogens such as *Aeromonas spp.*, which are not covered by standard antibiotic regimens for skin flora [1-3]. While prompt surgical extraction and thorough irrigation remain fundamental to treatment, the consideration of adjuvant empiric antibiotic therapy, administered in

the absence of a confirmed infection, is advisable in the context of freshwater exposure to mitigate environment-specific infectious risks [1,2].

## CONCLUSIONS

In cases of freshwater trauma, suspicion of retained foreign bodies, even in the absence of an entry wound, is warranted. Early radiography and timely extraction are essential. Consideration of empiric antibiotics aligned with freshwater pathogens is recommended to support uncomplicated recovery and complete functional restoration.

## Correspondence

Dr. R. Israeli

Dept. of Orthopedic Surgery, Kaplan Medical Center, Rehovot 7610041, Israel

Email: rafi321@gmail.com

## References

1. Noonburg GE. Management of extremity trauma and related infections occurring in the aquatic environment. *J Am Acad Orthop Surg* 2005; 13: 243-53.
2. Diaz JH, Lopez FA. Skin, soft tissue and systemic bacterial infections following aquatic injuries and exposures. *Am J Med Sci* 2015; 349: 269-75.
3. Avanzato VA, D'Angelo J, Okolie J, Massart A. Bacteremia with oral *Prevotella salivae* in an 18-year-old after a water skiing fall into a freshwater lake. *J Investig Med High Impact Case Rep* 2023; 11: 1-5.
4. Liaw F, Murray O, Tan YY, Hems T. Retained foreign body in a diabetic patient's hand. *Open Orthop J* 2018; 12: 203-7.
5. Jandl NM, Rolvien T, Rupp T, et al. Diagnostic yield of cone beam computed tomography for small foreign body detection in the hand in comparison with radiography, MSCT and MRI: an ex vivo study. *Injury* 2021; 52: 2841-7.

## Capsule

### A phase 3 trial of brepocitinib in dermatomyositis

This phase 3 randomized, placebo-controlled trial, by **Vleugels** et al. evaluated brepocitinib, an oral TYK2/JAK1 inhibitor, in patients with active dermatomyositis. Treatment with brepocitinib led to significant improvement in disease activity scores, including skin and muscle involvement, compared with placebo. A higher proportion of patients achieved clinically meaningful responses based on composite measures such as the Total Improvement Score. Benefits were observed across multiple domains,

including muscle strength and patient-reported outcomes. The safety profile was consistent with other JAK inhibitors, with adverse events including infections, laboratory abnormalities, and mild gastrointestinal symptoms. The study supports brepocitinib as an effective targeted therapy for dermatomyositis, a condition with limited treatment options.

*N Engl J Med* 2026; 394: 1883  
Eitan Israeli

## Capsule

### Endovascular treatment of medium-vessel-occlusion strokes

**Hu** et al. assessed whether endovascular thrombectomy improves outcomes in patients with medium-vessel-occlusion (MeVO) ischemic stroke, a group traditionally managed medically. Patients were randomized to thrombectomy plus standard care or standard care alone. The intervention group showed better functional outcomes, with higher rates of independence at 90 days (modified Rankin scale). Recanalization rates were higher with endovascular therapy,

although procedural risks such as intracranial hemorrhage were slightly increased. Overall, the benefit-to-risk balance favored intervention in selected patients. The findings expand the role of thrombectomy beyond large-vessel occlusions, suggesting that carefully selected MeVO patients may benefit from endovascular treatment.

*N Engl J Med* 2026; 394: 1894  
Eitan Israeli