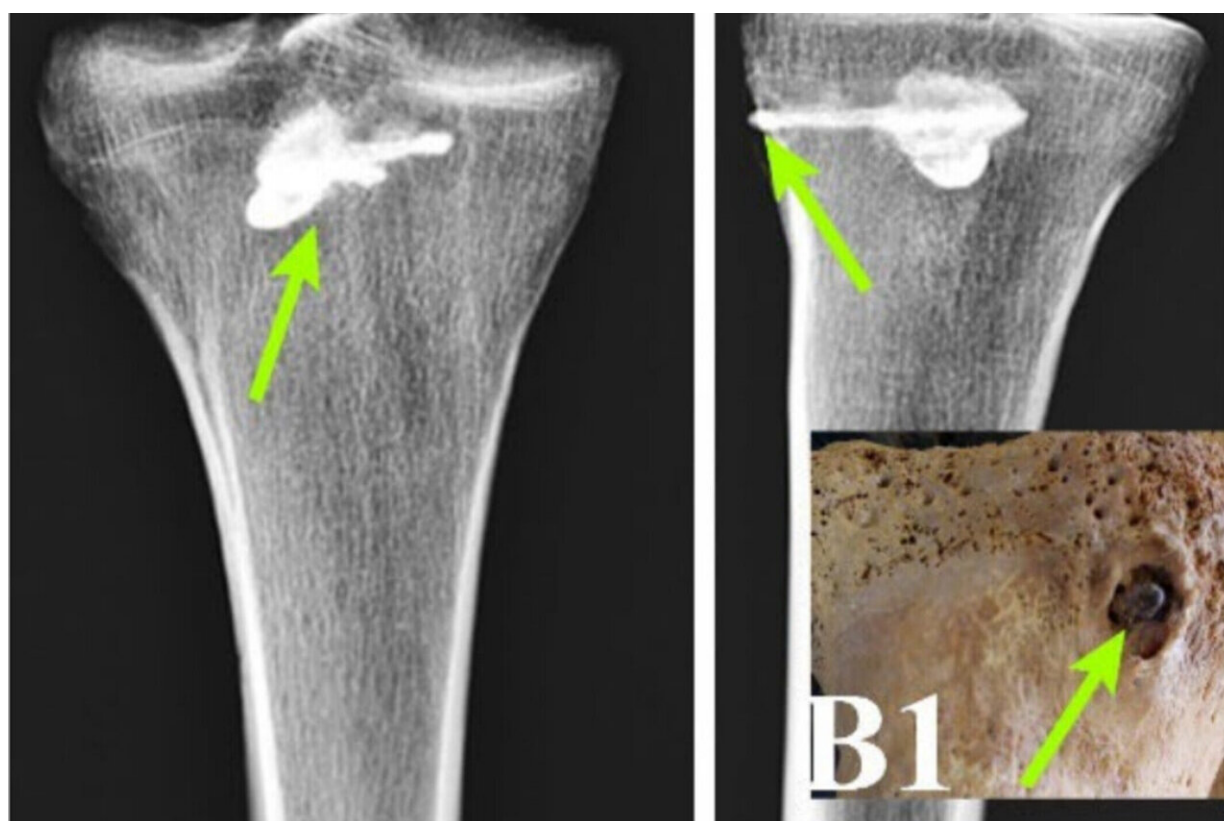


Study finds ancient Parthian man shot by an arrow which was never removed

October 1 2025, by Sandee Oster



Various images of the bone and embedded arrow. Credit: Eghdami et al. 2025

A study [published](#) in the *International Journal of Osteoarchaeology*, led by Dr. Mohammad Reza Eghdami and his colleagues, examined the remains of a Parthian-era individual. The Parthians were descendants of

the Parnian tribe and part of the Dahae Union. They were renowned for their military prowess, particularly in their mounted warfare tactics and skilled archery.

Additionally, they were skilled metalworkers who created weapons and various accessories, such as horse tack, that even the Romans recognized as exceptional.

Between 2016 and 2018, three excavations conducted at the Liyar-Sang-Bon archaeological site cemetery in Guilan Province, Iran, uncovered [77 skeletal remains](#).

Among them was a crypt grave containing the remains of an adult man, laid to rest on his left side with his legs bent in a flexed position.

The remains were poorly preserved with various skeletal elements missing, including parts of the pelvis, ribs, vertebrae, and left arm.

Among his grave goods were some metal and pottery artifacts, including a jar noted for its poor construction and firing quality, yet a polished exterior. Inside the jar were smoke traces as well as the remains of a bird.

Using X-ray fluorescence, quantometer analysis, and CT scans, they were able to determine that the individual had a metal object embedded within his right tibia.

Examination revealed that it was a three-bladed metal arrowhead, measuring 44mm in length and 15mm in width.

The arrowhead is notable for its consistency with other Parthian arrows.

Further analysis revealed that dense bone tissue began to form around

the arrowhead some time after impact. However, no signs of infection or new bone formation were evident, save for the area where the arrow penetrated the bone at the tibial tuberosity.

According to Dr. Eghdami, the length of time the individual lived after impact is unknown. "Determining the exact time is not feasible ... However, the [bone structure](#) shows signs of healing around the beam, and the external condition of the wound suggests that a significant amount of time has passed and the healing process has occurred."

No direct comparison for similar injuries can be made, and in general, weapon-related injuries are rare in the cemetery, explains Dr. Eghdami, saying, "Unfortunately, no further evidence of penetration or war-related injuries was identified in this specimen, except for one [separate] case involving a knife wound to the throat and maxilla ... However, numerous weapons have been discovered within the burial site."

The intricate design of the arrowhead, characterized by its precision, underscores the technological and metallurgical skill of the Parthians. However, the inability to remove the embedded arrowhead suggests at least some shortcomings in terms of their surgical practices, shedding light on the medical limitations of the area.

Sadly, relatively little is known about the medical practices of the Parthians, explains Dr. Eghdami, saying, "Scientific information regarding the Parthian period remains scarce, and regrettably, no verified data has been acquired on the matter."

Future studies in the fields of paleobotany and [medicinal plants](#) may provide additional insights into the Parthians' medical knowledge, as well as an examination of medical texts and relevant archaeological evidence.

This remarkable discovery not only highlights the deadly effectiveness of Parthian weaponry but also offers new insights into the understanding of warfare and the medical capabilities of the Parthians in the Liyarsangbon region.

More information: Mohammad Reza Eghdami et al, Weaponry and a Healed Wound From the Parthian Era (247 bce to 224 ce): Insights From the Liyarsangbon Cemetery, Guilan, Iran, *International Journal of Osteoarchaeology* (2025). [DOI: 10.1002/oa.70038](https://doi.org/10.1002/oa.70038)

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