

Rare Case of Persistent First Rib Osteomyelitis in a twenty-seven year old Male

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Case Presentation

A 27-year-old male presented to our facility with severe right shoulder pain of three day duration after strenuous weight lifting exercises. He had a past medical history significant for intravenous heroin use several years ago and was hospitalized a month ago for Methicillin-resistant Staphylococcus aureus bacteremia and osteomyelitis of the right collarbone, upper rib, and scapula where he completed a 6-week course of treatment with vancomycin.

Physical exam was significant for limited passive range of motion in his right arm in all directions due to pain. His vital signs were within normal limits other than a temperature of 100.0F. Laboratory studies were significant for elevated white blood cell count, erythrocyte sedimentation, and c-reactive protein of 12.8 (<3.0 mg/L).

Magnetic resonance imaging of his chest illustrated right first rib osteomyelitis, infectious costochondritis, and a periosteal abscess. His transesophageal echocardiogram and five day blood cultures were negative. He initially received empiric vancomycin and ceftriaxone and was recommended further surgical intervention. The patient preferred to defer treatment and was subsequently discharged.

Conclusion

We report an unusual case of persistent first rib osteomyelitis in a 27-year-old personal trainer without history of past orthopedic procedures or trauma. Infection or other unsuspected pathology should be considered when clinical findings are not consistent with musculoskeletal injury following strenuous athletic exertion.

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Discussion

Rib osteomyelitis is a rare phenomenon and is less than 1% of all cases of hematogenous osteomyelitis [1]. Intravenous drug use is a risk factor for developing osteomyelitis as are traumatic bone injury. The patient in our study was by history, a former intravenous heroin user. Osteomyelitis in heroin addicts commonly affects vertebrae, pubis, sternoclavicular and costochondral joints. [2]. Although the patient did not have a history of any orthopedic surgeries or injury, he routinely participated in strenuous heavy weight lifting which may have put his pressure on his clavicle and rib cage joints predisposing them to infection.

References

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2. Bishara Jihad, Gartman-Israel D, Weinberger M, Maimon S, Tamir G, Pitlik S. (2000). Osteomyelitis of the ribs in the antibiotic era. *Scandinavian journal of infectious diseases*. 32. 223-7. 10.1080/00365540050165839.

Figure

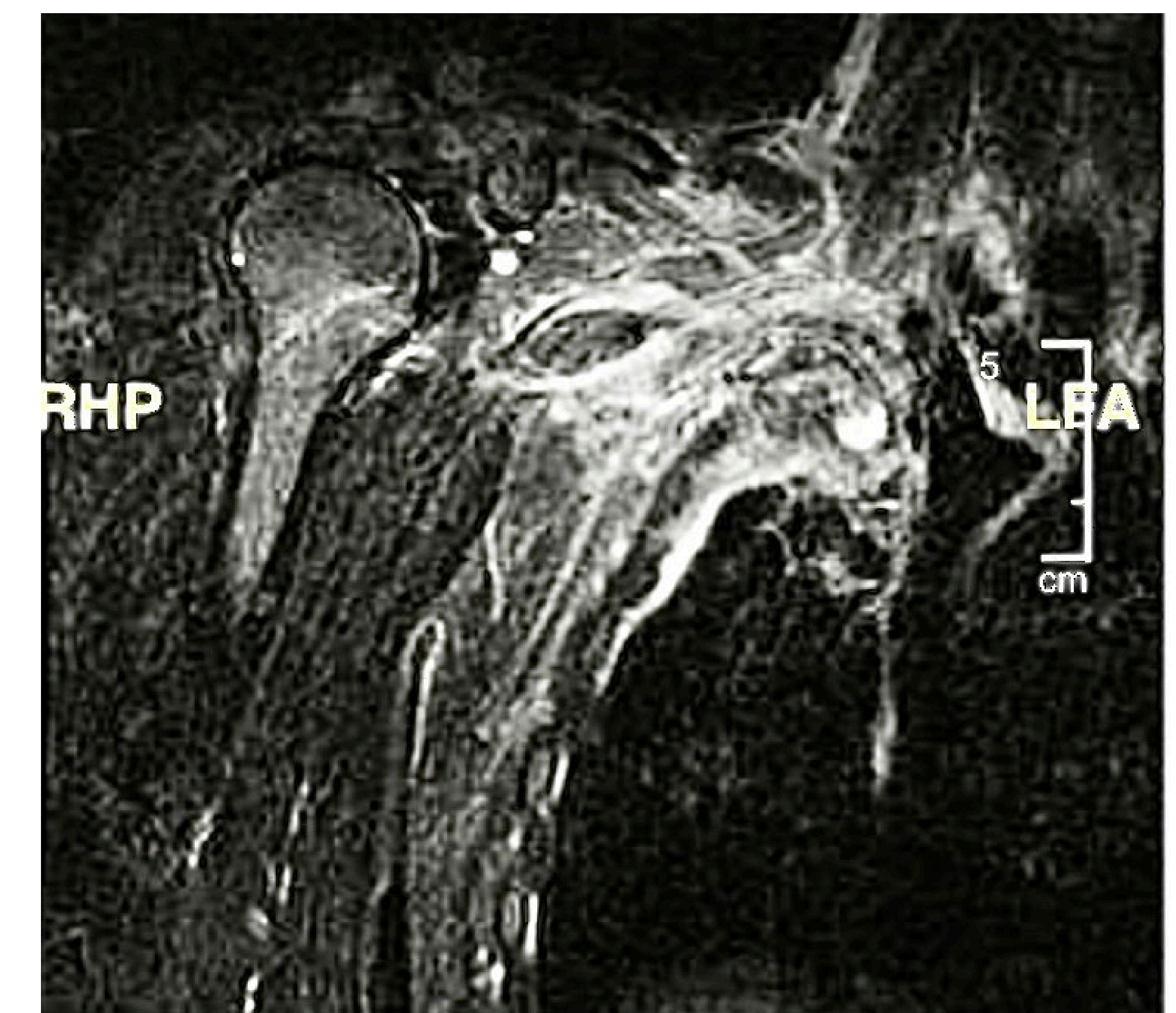


Figure 1. Magnetic resonance imaging of his chest illustrated right first rib osteomyelitis, infectious costochondritis, and a periosteal abscess.

