A rare case of diffuse large B-cell lymphoma (DLBCL) in the ankle of a patient with concurrent Charcot neuroarthropathy is presented to raise awareness of the disease, and heighten clinical suspicion in the presence of known pathology.

Malignant lymphoma typically occurs in lymph nodes, but can originate in bone as primary bone lymphoma (PBL). PBL typically presents with vague local symptoms of pain and swelling without systemic symptoms known to lymphoma. Primarily seen in the long bones of the extremities and pelvis, incidence in the foot and ankle is rare. Diagnosis is only confirmed through immunohistology with DLBCL presenting as the most common subtype. Early diagnosis is important, as the 5-year survival rate in disseminated disease is 38%. Standard treatment consists of cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP) or CHOP with rituximab (R-CHOP). While surgical resection has a narrow indication, given the favorable prognosis, any reconstruction for skeletal lesions should have long-term durability.

65-year-old diabetic male with neuropathy, Afib, and hypertension was referred to the primary surgeon with right foot pain and swelling. Right ankle MRI demonstrated fragmentation of the mid/hindfoot consistent with Charcot. Physical exam demonstrated bilateral lower extremity swelling with pain most pronounced on the right. A pantalar fusion was planned.

Intraoperatively, upon inspection of the ankle, copious purple, gelatinous material within the joint and surrounding soft tissues was encountered and resected. Specimens were sent for STAT gram stain and fresh frozen section. Intraoperative pathology revealed a primary diagnosis of lymphoma. The procedure was aborted and the limb was stabilized using an external fixator. Final pathology and flow cytometry revealed monoclonal B-cell lymphoproliferative disorder positive for CD19, 20, 38 and FMC7, consistent with non-Hodgkin's Lymphoma. Nuclear medicine scan (Fig 3) demonstrated increased uptake in bilateral tibias, right femur, and bilateral feet consistent with lymphoma with superimposed Charcot. He was diagnosed with DLBCL (IPI score of 4, Ann Arbor Stage IV-A) and referred to outpatient oncology.

He underwent six cycles of R-CHOP chemotherapy and maxillary sinus mass excision. Once in remission and cleared by Oncology, the patient underwent arthrodesis of the right medial column and ankle. Follow-up pathology was negative for malignancy. Over the next five years, the patient had multiple procedures on his right lower extremity secondary to non-union and ultimately ended up with a TTC fusion using RIA and IMN. Eight years later he remains ambulatory and in remission.

While there are reports of DLBCL in the foot and ankle, we were unable to find any in conjunction with Charcot neuroarthropathy. This unique case is presented to raise awareness of this disease and inform practitioners that malignancy can occur simultaneously with other complex pathologies.

References

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