Angioimmunoblastic Lymphoma Presenting As Inflammatory Polyarticular Arthritis

Kaitlyn Dalsey DO, John Oghene MD, Natalie Millet DO, Anan Hajja MD
AtlantiCare Regional Medical Center, Pomona, N.J., U.S.A.

Introduction

- Angioimmunoblastic Lymphoma (AIBL) is an aggressive rare T cell lymphoma
- Polyarticular arthritis is a common presenting chief complaint for multiple disorders emphasizing value of a broad differential

Case Presentation

58-year old male with a medical history significant for obesity presented to the Rheumatology clinic with a 10-month history of bilateral joint pain and morning stiffness of the MCP, PIP, wrist, knees, and weight loss. He had been prescribed Semaglutide for weight loss which caused a 40-pound weight loss over the last 9 months; a more robust response than expected. On physical exam, the patient had synovitis of the MCP, PIP, wrist and knees joints; bilaterally. No rashes, lesions or palpable nodules, lymphadenopathy were appreciated. His initial laboratory studies revealed an ESR of 37, CRP of 12.1, with a PLT count of 378. ANA, cANCA, pANCA, Hepatitis B/C, HV, Lyme, HLA B27 were all negative. The patient was started on Prednisone 15mg daily and Semaglutide was discontinued. At his 2-month follow up visit, he complained of persistent weight loss after discontinuing Semaglutide, new onset inguinal lymphadenopathy and a maculopapular skin rash. These new findings prompted a referral to dermatology and hematostasis-oncology.

MRI of the left lower extremity: Abnormally enlarged lymph nodes in the left inguinal region and left concerning for a lymphoproliferative disorder such as lymphoma or metastatic disease.
- Inguinal biopsy performed with histology confirming diagnosis of AIBL and its differential diagnosis.
- Presentation of inflammatory polyarticular arthritis is a common presenting chief complaint
- Polyarticular arthritis is a presenting feature of multiple disorders
- Hematological disorder: Lymphoma, Leukemia, etc.
- Rheumatologic disorder: Arthritis
- Neurologically: Sarcoidosis, Multiple sclerosis
- Infectious: Bacterial, Viral
- Neuromuscular disease: ALS, Charcot Marie Tooth, Myositis, SS, etc.
- Endocrine: Hyperparathyroidism, hyperthyroidism, etc.
- Gastrointestinal: SIBO
- Other: Cushing Syndrome, Addison Disease, etc.

Diagnosis and Management

- MRI of the left lower extremity: Abnormally enlarged lymph nodes in the left inguinal region and left concerning for a lymphoproliferative disorder such as lymphoma or metastatic disease.
- Inguinal biopsy performed with histology confirming diagnosis of AIBL and its differential diagnosis with atypical CD4+ T-cell population with aberrant expression of CD10; loss CD3 and CD7
- Staging PET scan performed and chemotherapy initiated for Stage III AIBL
- Patient completed two rounds of Brentuximab, cyclophosphamide and doxorubicin
- Repeat PET scan shows promising response with marked reduction of lymphadenopathy

Differential Diagnosis for Polyyarticular Arthritis

- Autoimmune Connective Tissue Disease: Rheumatoid Arthritis, SLE, Vasculitis
- Spondyloarthitis: Psoriatic Arthritis, Ankylosing spondylitis, Reactive Arthritis, IBD
- Infectious Arthritis: Bacterial, Viral
- Crystal Arthritis: Gout, pseudogout
- Neuromuscular disease: ALS, Charcot Marie Tooth, Myositis, SS, etc.
- Comorbid Disease: DM, Depression,polypharmacy, drug induced lupus, lymes, Hep C etc
- Hematologic disease: Lymphoma, Leukemia, malignancy
- Chronic Use: Osteoarthritis, trauma
- Miscellaneous: amyloidosis, fibromyalgia, sarcoidosis , hypermobility

Conclusion

- This rare case of AIBL illustrates the importance of maintaining a broad differential when presented with inflammatory polyarticular symptoms especially in combination with additional features such as skin lesions, lymphadenopathy or weight loss.
- As there is a paucity in literature, additional case reports and literature reviews on AIBL are needed to help expand our understanding of this disease.

References

- Kaitlyn Dalsey DO, John Oghene MD, Natalie Millet DO, Anan Hajja MD. "Angioimmunoblastic Lymphoma Presenting As Inflammatory Polyarticular Arthritis." AtlantiCare Regional Medical Center, Pomona, N.J., U.S.A.

PET Scan images

Figure 1. PET reveals hypermetabolic lymphadenopathy in bilateral inguinal as well as cervical lymph nodes

Figure 2. PET reveals marked improvement in hypermetabolic lymph node activity after 2 cycles of chemotherapy

Figure 3. Histology shows loss of lymphoid architecture with infiltrating lymphoid cells often surrounded by proliferating blood vessels