The Importance of a Broad Differential Diagnosis: Hepatitis C Virus Associated Cryoglobulinemic Vasculitis

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Introduction:

Mixed cryoglobulinemia syndrome (MCS) is a systemic inflammatory syndrome affecting small-medium sized vessels due to the presence of type II or III cryoglobulins in the serum. MSC can manifest as systemic vasculitis with symptoms varying from weakness, arthralgia, palpable purpura, peripheral neuropathy, and renal involvement. The most common cause of MCS includes lymphoproliferative disorders, autoimmune diseases and viral infections, with hepatitis C virus (HCV) being the most common etiology.

Case Presentation:

A 60-year-old lady was referred to our office for evaluation of rheumatoid arthritis. She reported history of bilateral thumb pain, bilateral knee pain associated with episodes of swelling, warmth, and erythema, and left shoulder pain resulting in restricted range of motion. Further, she reported new onset of slightly painful and itchy skin lesions on her arms bilaterally for one year associated with onset of chemotherapy for treatment of colorectal cancer. She denied fever, chills, fatigue, weight loss, hearing loss, dry, red or painful eyes, nasal or oral sores, epistaxis, Raynaud phenomenon, shortness of breath, chest pain, hemoptysis, dysphagia, hematemesis, hematochezia, and hematuria. Physical examination was significant for red non-blanchable lesions on bilateral legs and feet without ulceration, bilateral tenderness of carpometacarpal joints, and left shoulder tenderness with restriction of range of motion. Patient had a skin biopsy which had revealed leukocytoclastic vasculitis. Differential diagnoses included rheumatoid vasculitis, IgA vasculitis, Cryoglobulinemia, and ANCA related vasculitis. The patient was empirically started on Prednisone 40 mg daily to be titered down. Work up revealed elevated liver enzymes, positive cryoglobulins, cryocrit more than one percent, positive ANA with nuclear speckled pattern with a titer of 1:80, and reactive HCV antibody. Based on history, physical examination and lab findings, a diagnosis of HCV induced cryoglobulinemic vasculitis was made.

Conclusion:

In the context of biopsy proven leukocytoclastic vasculitis, a broad differential diagnosis including systemic causes of vasculitis should be undertaken. MCS associated with HCV is a

severe form of the disease with a 5-year mortality rate of 25 percent. Therefore, it is of utmost importance to make an accurate diagnosis and initiate the appropriate treatment to improve the quality of life, reduce complications and the mortality.