### Scurvy: A Missed Mimicker of Vasculitis

### 2022 Lifespan Research Day Abstract

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### Abstract

## Background & Aim:

Scurvy can cause poor wound healing, hemarthrosis, petechiae, perifollicular hemorrhages, and nonspecific myalgias. These findings are also common in vasculitis, but scurvy typically lacks the laboratory evidence for vasculitis. We present a case which mimicked vasculitis with both physical and lab findings, leading to a delayed diagnosis and high resource expenditure.

A female in her 60s presented with one month of progressive lower extremity pain and weakness. Her medical history was significant for cirrhosis secondary to hepatitis C (treated), chronic pancytopenia, and hypothyroidism. She was a current smoker with a 20–pack year history. Her initial exam revealed purpuric rash, right knee effusion, and a tender abdomen. The rash, arthralgia, and pancytopenia raised concern for vasculitis, for which rheumatology and dermatology were consulted.

### **Methods:**

Initial labs showed elevated myeloperoxidase (MPO) and proteinase—3 (PR—3) antibodies and increased perinuclear anti–neutrophil cytoplasmic antibody (p–ANCA) immunofluorescence suggestive of a small–vessel vasculitis. Arthrocentesis of the right knee demonstrated a noninflammatory hemarthrosis. A paracentesis revealed hemoperitoneum but was complicated by the development of a large ecchymoses on the abdomen.

Results:

Throughout the admission the patient underwent extensive laboratory workup with normal partial thromboplastin

time (PTT), international normalized ratio (INR), ristocetin assay, and synthetic liver function. After considering underlying connective tissue dysfunction as the etiology of the apparent coagulopathy, we considered scurvy, and a subsequent vitamin C level resulted as undetectable. A dietary history revealed her diet consisted mostly of Cheetos. She was started on 500 mg daily of vitamin C for 1 month, was then to start a multivitamin, and follow—up with hematology.

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#### **Conclusion:**

Vitamin C plays a vital role in hydroxylation of proline and lysine residues during collagen fiber generation. With collagen fiber dysfunction, the coagulation cascade can be disrupted with normal INR and PTT. This case highlights that scurvy can be a mimicker of vasculitis and must be considered on the differential.

# Clinical Implications:

The patient's presentation deceived multiple consultants (Rheum, Hem-Onc, GI, Derm, Ortho) and resulted in increased length of stay with an expensive diagnostic workup. A dietary history on admission could have significantly decreased the resources used while improving the patient outcome