

Worsening COPD from Hyperviscosity: A Case Report of Waldenström Macroglobulinemia

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Introduction

Waldenström macroglobulinemia (WM) is a rare, low-grade B-cell lymphoproliferative neoplasm with an annual incidence of 3 to 4 cases per million.

Hyperviscosity syndrome, a rare complication, is an oncologic emergency that requires **prompt** recognition and treatment with plasmapheresis.

Case Presentation

We present a 73-year-old female with a past medical history of chronic obstructive pulmonary disease (COPD) who developed worsening dyspnea on exertion and chronic fatigue due to **hyperviscosity syndrome from WM**.

She denied night sweats, vision changes, or bleeding, and her neurological exam was unremarkable.

Laboratory Parameter	Result	Unit
Total Protein	11.1	mg/dL
Albumin	3.0	g/dL
White Blood Cell Count	3.31	k/ μ L
Hemoglobin	11.3	g/dL
Platelet Count	175	k/ μ L
IgM Kappa Monoclonal Spike (SPEP/Immunofixation)	5.28	g/dL
Quantitative IgM	>6500	mg/dL
Serum Viscosity	5.9	times water

Case Presentation

Presented with worsening COPD and did not respond to treatment. Pulmonologist ordered workups for elevated total protein

She was unable to lie prone for a bone marrow biopsy due to her dyspnea. The biopsy was performed in the lateral decubitus position.

Decreased Oxygen demand with improvement of shortness of breath

- 2 month

Total Protein
11.1 mg/dl

- 1 month

Worsening shortness of breath with urgent care visit but infection workups not remarkable.

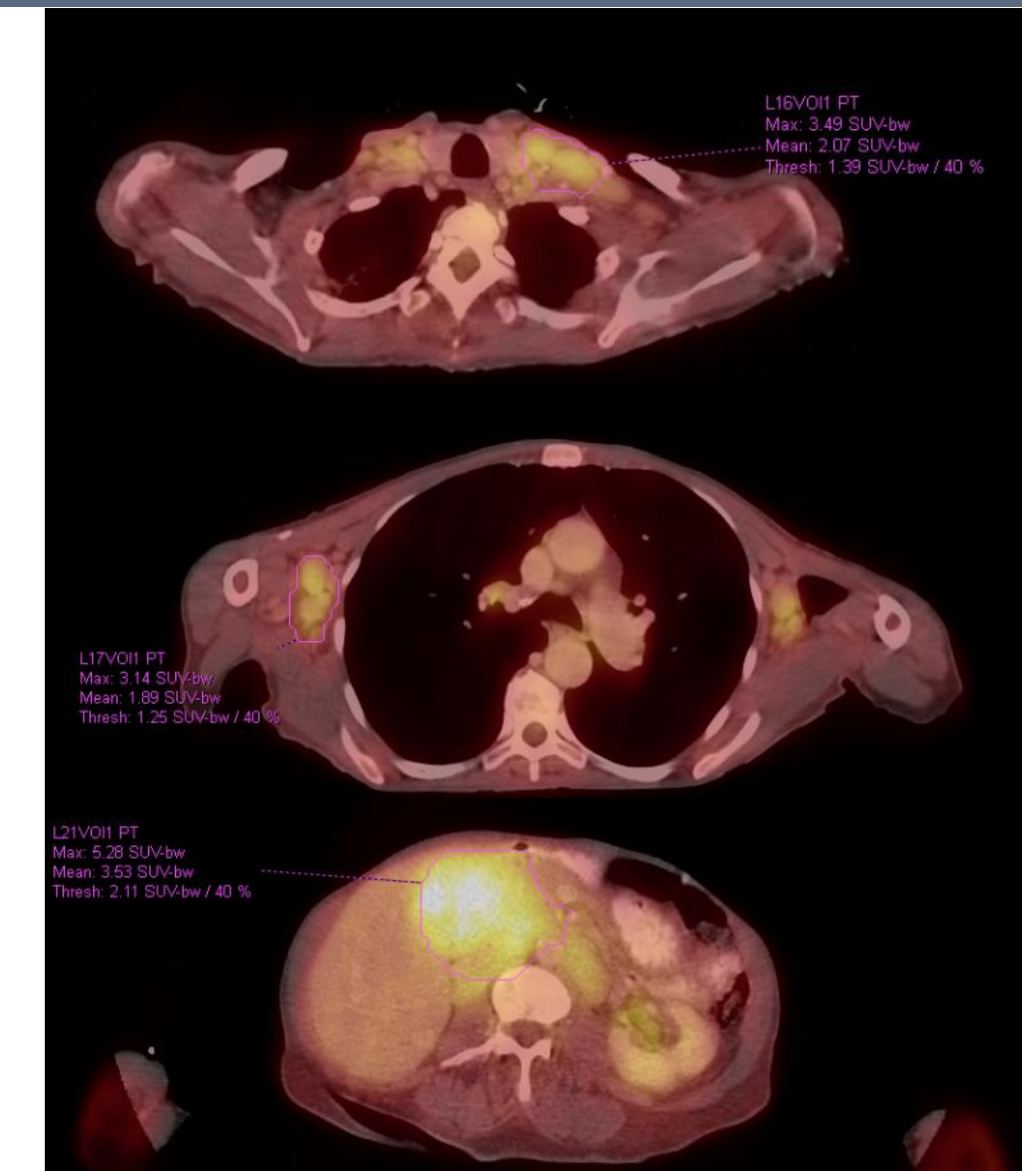
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Immunofixation found IgM kappa gammopathy

1 week

Diagnosed with WM and started on Zanubrutinib

2 months



Tracer avid lymph nodes throughout the torso, which are consistent with lymphoma.

Discussion

Hyperviscosity syndrome should be promptly identified through careful monitoring for **mucosal bleeding, neurological symptoms, and visual changes** and confirmed through lab results.

In this case, the patient's decision not to pursue plasmapheresis presented a challenge, as untreated hyperviscosity can lead to **life-threatening complications**.

This case also highlights the importance of **a thorough differential diagnosis** in patients with chronic fatigue and worsening respiratory symptoms, as her underlying COPD complicated the diagnostic process and could have delayed disease recognition.

References

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Waldenström Macroglobulinemia/ Lymphoplasmacytic Lymphoma NCCN guidelines, Version 1.2025 — September 13, 2024

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