Unveiling the Link:
Rheumatologic-Induced Mania in a Case of Treatment Resistant Affective Disorder

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Introduction

- Systemic Lupus Erythematosus (SLE) is a common rheumatologic illness with the highest known rate of neuropsychiatric manifestations. However, rheumatologic-induced mania is not well-described, despite one cross-sectional study of 128 patients reporting incidence rates of 3% (Brey, 2002).
- We present a unique case of mania secondary to SLE and anti-MDA-5 dermatomyositis, an extremely rare overlap.
- SLE disproportionately impacts Black and Latinx individuals and raises unique concerns for morbidity and mortality. Delays in diagnosis and treatment may occur, as accurately diagnosing illness in individuals with darker skin tones may present unique challenges (Dodd, 2023).

Anti-MDA-5/SLE

- Anti-melanoma differentiation-associated protein 5 (Anti-MDA-5) is a rare diagnosis associated with amyopathic myositis and is seen more commonly in those of European and Asian descent.
- Patients will not have muscle symptoms nor elevated muscle enzymes (i.e., creatine kinase, aldolase). Specific skin findings for Anti-MDA-5 include palmar papules and plantar hand ulcerations, and fifty percent of patients develop rapidly progressive lung disease (ILD).
- Very few cases in the literature exist for Anti-MDA-5/SLE overlap. Patients without significant pulmonary disease may be more correlated with neuropsychiatric symptoms than either disease alone.

Case Presentation

- A 38-year-old Black/Latinx male with no past psychiatric history presented with family for acute behavioral changes and was admitted for acute encephalopathy.
- He was recently hospitalized for cellulitis and left against medical advice, failing to complete a course of antibiotics. Per family, he was previously high-functioning and recently earned his MBA. His only known prior medical illness was anemia. However, he began to display concerning behaviors, including talking to himself, sending strange text messages, and accusing neighbors of being criminals weeks prior to admission.
- On initial evaluation, he displayed grandiose delusions of being a millionaire, paranoid delusions regarding his safety, tangential thought process, and pressured speech.

Entry criterion
Antinuclear antibodies (ANA) at a titer of ≥1:80 on HEp-2 cells or an equivalent positive test (ever)
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If absent, do not classify as SLE If present, apply additive criteria

Clinical domains and criteria	Weight	Immunology domains and criteria	Weight
Constitutional		***Antiphospholipid antibodies***	
Fever	2	Anti-cardiolipin antibodies OR	
Hematologic		Anti-β2GP1 antibodies OR	
Leukopenia	3	Lupus anticoagulant	2
Thrombocytopenia	4	***Complement proteins***	
Autoimmune hemolysis	4	Low C3 OR low C4	3
Neuropsychiatric		Low C3 AND low C4	4
Delirium	2	***SLE-specific antibodies***	
Psychosis	3	Anti-dsDNA antibody* OR	
Seizure	5	Anti-Smith antibody	6
Mucocutaneous			
Non-scarring alopecia	2		
Oral ulcers	2		
Subacute cutaneous OR discoid lupus	4		
Acute cutaneous lupus	6		
Serosal			
Pleural or pericardial effusion	5		
Acute pericarditis	6		
Musculoskeletal			
Joint involvement	6		
Renal			
Proteinuria >0.5g/24h	4		
Renal biopsy Class II or V lupus nephritis	8		
Renal biopsy Class III or IV lupus nephritis	10		

TOTAL: 13

-ANA 1:1280 on admission
-Patient meets criteria for SLE diagnosis

Classify as SLE with a score of 10 or more if entry criterion fulfilled

Skin ulcerations seen in MDA-5 Dermatomyositis (NEJM August 1, 2019)

- After an initial medical workup was completed, the patient was started on risperidone, lorazepam and lithium for presumed mania. When incidental findings of +ANA and +CRP resulted, he was evaluated by rheumatology, who discovered skin findings missed on initial examination by both his primary team and psychiatry. He met EULAR criteria for SLE and was started on corticosteroids. All psychotropic medications were discontinued due to adverse effects, including concern for acute kidney injury, EPS, and sedation. He was started on rituximab for treatment-refractory symptoms of mania.
- A neuroimmunology consultant recommended a myositis panel and diagnosed MDA-5 dermatomyositis via a +MDA-5 autoantibody. Low-dose olanzapine was started for persisting manic symptoms secondary to SLE/MDA-5 and resulted in significant clinical improvement of both medical and psychiatric symptoms by the time of discharge.

Conclusions

- This rare case of mania secondary to SLE/MDA-5 exemplifies the importance of multidisciplinary collaboration and advocacy to further the understanding of neuropsychiatric symptoms associated with rheumatological illness. Broadening the differential diagnoses beyond primary psychiatric illness was crucial in diagnosis and treatment, as further delays may have negatively impacted this patient's clinical outcome.
- Continuous monitoring and reassessment is paramount throughout treatment, as corticosteroids may exacerbate existing neuropsychiatric symptoms, and patients naive to antipsychotic use may be especially susceptible to adverse effects (Marques, 2009).
- This case highlights the importance of a thorough physical examination and laboratory workup to ensure diagnostic accuracy. Accordingly, a rheumatologic consultation may be warranted in patients presenting with indolent skin findings and atypical psychiatric symptoms that fail to respond to treatment with psychotropic medications.

References

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