



#DaVinciCases

[Dermatology Case 4](#)



Dermatology 4

A 45-year-old woman presents to clinic with complaints of upper body weakness. Over the past 4 months she has noticed difficulties with opening and closing jars when making her kids lunch in the mornings. She also has been unable to finish blow drying her hair over the last month. Physical exam reveals erythema over the malar region involving the nasolabial folds (see image below) and diffuse erythema on the chest. Which lab is the most specific for this patient's condition?

- A. Antinuclear antibody
- B. Anti-double stranded DNA
- C. Anti-DNA topoisomerase I
- D. Anti-SRP
- E. Anti-U1-RNP



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Key Findings

- Location of weakness (proximal involving shoulders and hands)
- Malar rash involving the nasolabial folds and erythema of the neck “shawl and face” sign
- Image: erythematous patches over the malar region
- Differential:
 - Dermatomyositis
 - Polymyositis
 - Systemic Lupus Erythematosus



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Polymyositis:

- Autoimmune myopathy is characterized by symmetric proximal weakness and no rash
- T-cell driven characterized by endomysial inflammation → associated with CD8+ lymphocytes
- Symptoms: progressive weakness in hips and shoulders, dysphagia, dysphonia

Dermatomyositis:

- An autoimmune myopathy characterized by symmetric proximal muscle weakness and rash
- Characterized by perimysial inflammation and atrophy, resulting in muscle tissue damage → associated with CD4+ lymphocytes and complement activation
- Symptoms: progressive weakness in hips and shoulders, dysphagia, dysphonia, photosensitive pink rash and the neck and trunk (shawl sign), purple/lilac or red rash around eyes and on eyelids (heliotrope rash), raised violaceous, slightly scaly plaques on bony prominences of the hands and elbows (Gottron papules)



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Dermatomyositis of the eyelids

Heliotrope rash



Dermatomyositis of the arm

Shawl sign over the shoulder



Dermatomyositis of the hand

Gottron papules over the joints of the hands



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Systemic Lupus Erythematosus:

- Systemic autoimmune disease characterized by acute flares, commonly presenting with rash, joint pain, and fever
- multiple organ systems are involved, including renal, neurologic, dermatologic, cardiovascular, and hematologic



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Review of Autoimmune Antibodies

SLE	Antinuclear antibody Anti-dsDNA (anti-double stranded DNA) Anti-Smith Anti-cardiolipin Lupus anticoagulant
Antiphospholipid	Anti-Beta2 glycoprotein Anti-cardiolipin Lupus anticoagulant
Drug-induced lupus	Anti-histone
Sjögren syndrome	Anti-Ro (Anti-SS-A) Anti-La (Anti-SS-B)
Mixed connective tissue disease	Anti-U1-RNP
Scleroderma	Anti-Scl-70 (anti-DNA topoisomerase I) Anti-centromere Anti-RNA polymerase III Antinuclear antibody
Dermatomyositis/Polymyositis	Anti-Jo-1 (Anti-Jo-1) Anti-Mi-2 (Anti-helicase) Anti-SRP (Anti-signal recognition particle)



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Sydney Weir, MS4 UAB Heersink School of Medicine
Twitter: @sydneyaweir
Instagram: @sydneyaweir

Website for images used in this presentation:
UAB Digital Dermatology Atlas
<https://sites.uab.edu/dermatologyatlas/>





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