

# Name That Rash! A Textbook Case in Internal Medicine in which In-Basket Messaging Sometimes Is Not Enough

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## Introduction

- In outpatient medicine a patient's concern for a rash is very common.
- Communicating through the in-basket makes it more convenient for patients and they receive feedback fast.
- Rashes can be hard to differentiate without more context.
- Some classic textbook internal medicine diseases can cause rashes and are time sensitive when it comes to diagnosis.
- In person evaluation is still important to accurately identify a rash which can cause systemic involvement.

## Case Presentation Outpatient

- This is a case of a 45-year-old relatively healthy female with only past medical history of hyperlipidemia that reached out to her PCP through in-basket messaging about a new rash on her hands bilaterally. Initially she was given an antifungal but slowly began to experience more systemic symptoms.
- Two months later she arrived in the clinic with concerns of facial swelling, nausea, vomiting, headache, and worsening rash on the bilateral hands that spread to her elbows and chest.
- On her physical exam she was found to have a raised erythematous rash bilaterally (Gottron's sign) on her knuckles as well as tenderness of her muscles. After getting her history and physical exam it was decided an autoimmune work up was necessary.
- She then came back a week later for follow up on her lab results and stated her rash had been worsening and she was so weak she could no longer drive or get up from a chair
- She was found to have worsening symptoms on her physical exam including muscle strength of 3/5 on the proximal bilateral lower extremities, 4/5 on the proximal upper extremities, with the rest of her muscle strength was 5/5.
- Her rash had also extended, and she was found to have a heliotrope rash around the eyes and the shawl sign.
- Her initial labs were positive for an ANA of 1:40 with a speckled pattern as well as positive Sjogren's antibody. Her creatine kinase level was found to be normal.
- Medical records from 2022 show a mammogram with multiple breast lesions which were indeterminate and warranted further imaging.
- Due to her progressive muscle weakness and long wait times for specialist referrals it was felt it would be best if she got evaluated in the Emergency Room (ER) and admitted for additional work up.

## Case Presentation Continued Inpatient

- Upon presentation to the ER the patient was admitted and evaluated by dermatology which did a punch biopsy that was inconclusive and agreed with the likely diagnosis of dermatomyositis and recommended starting solumedrol.
- Neurology also evaluated the patient and recommended serological testing as well as a muscle biopsy from the deltoid. They also recommended treatment with solumedrol and IVIG.
- Rheumatology also saw the patient and based on clinical symptoms and positive ANA agreed with the diagnosis of dermatomyositis.
- Pt received IV solumedrol 20 mg q8 hours while hospitalized as well as 3 doses of IVIG.
- Pt received CT chest/abdomen/pelvis that was only significant for multiple pulmonary nodules measuring up to 3 mm.

## Case Presentation Continued Inpatient

- On discharge the patient's muscle strength had significantly improved and she was discharged with prednisone 60 mg po daily, methotrexate 15 mg po once weekly with 1 mg po folic acid supplementation, protonix 40 mg po for GI protection, and Bactrim MWF for prophylaxis.
- After discharge she followed up as an outpatient and her muscle biopsy had resulted positive with classical findings of dermatomyositis and serological testing was positive for TIF-1 gamma with increased risk of malignancy.

## Images



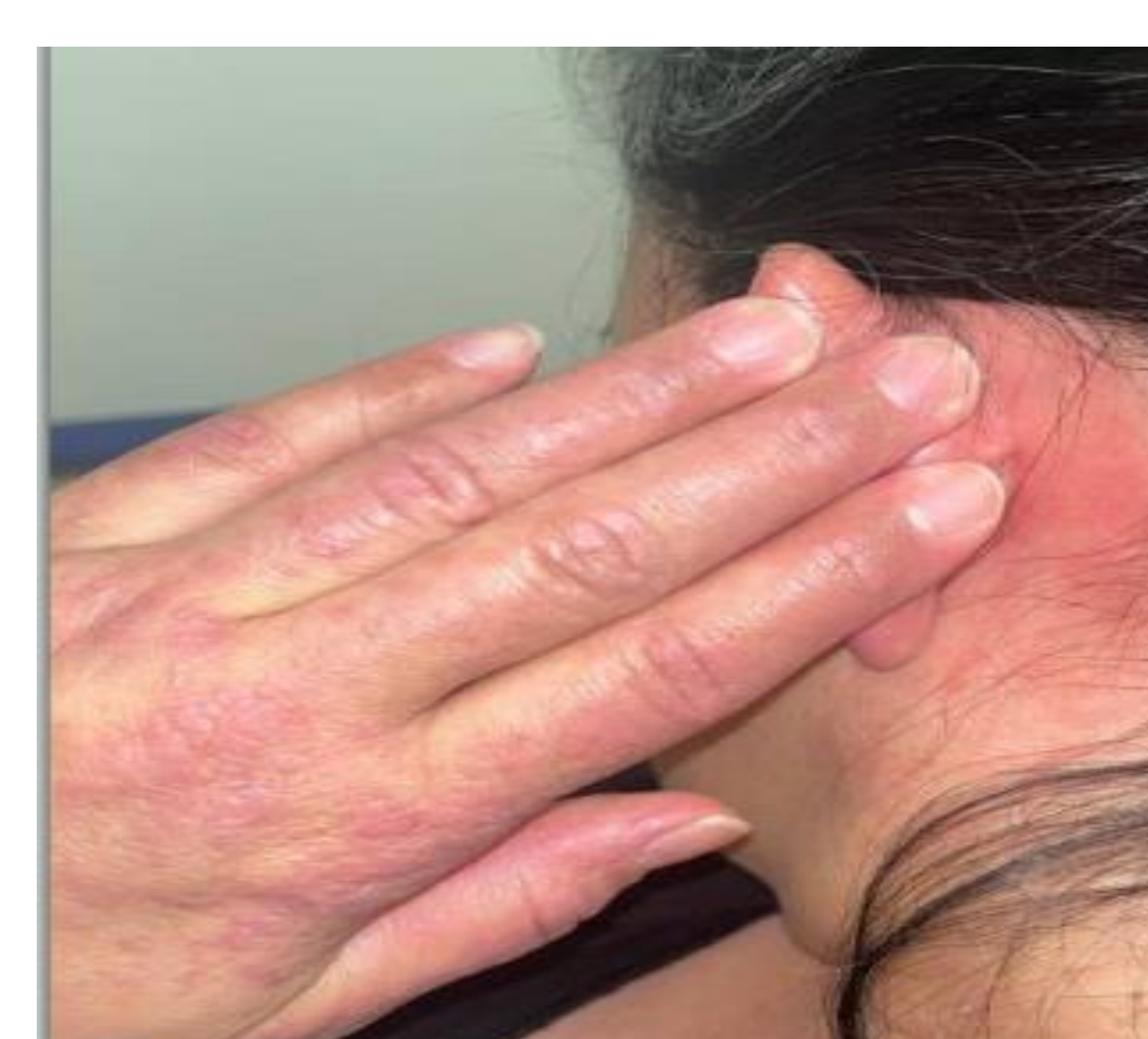
Initial in-basket messaging 2/2024



Clinic visit 4/2024



Chest 4/2024



Behind Left Ear 4/2024

## Relevant Laboratory/Pathology Data

- CRP 2.5 (normal <8 mg/L)
- Aldolase 13 (normal <8.1 U/L)
- CK 119 (normal 29-143 U/L) initially outpatient
- ANA positive 1:40 nuclear, speckled
- Sjogren's antibodies SSA 5.3 (normal <1 NEG AI)
- AST 40 ALT 35
- ESR 22 (normal 0-20 mm/hr)
- CEA negative
- CA 19-9 Negative
- CA 125 Negative
- CK 211 (normal 32-182 U/L) on admission
- Myositis specific panel TIF-1y AB 69 (normal <11 SI)
- Pathology results:  
RIGHT DELTOID MUSCLE BIOPSY:  
Dermatomyositis pattern of myopathy

## Discussion

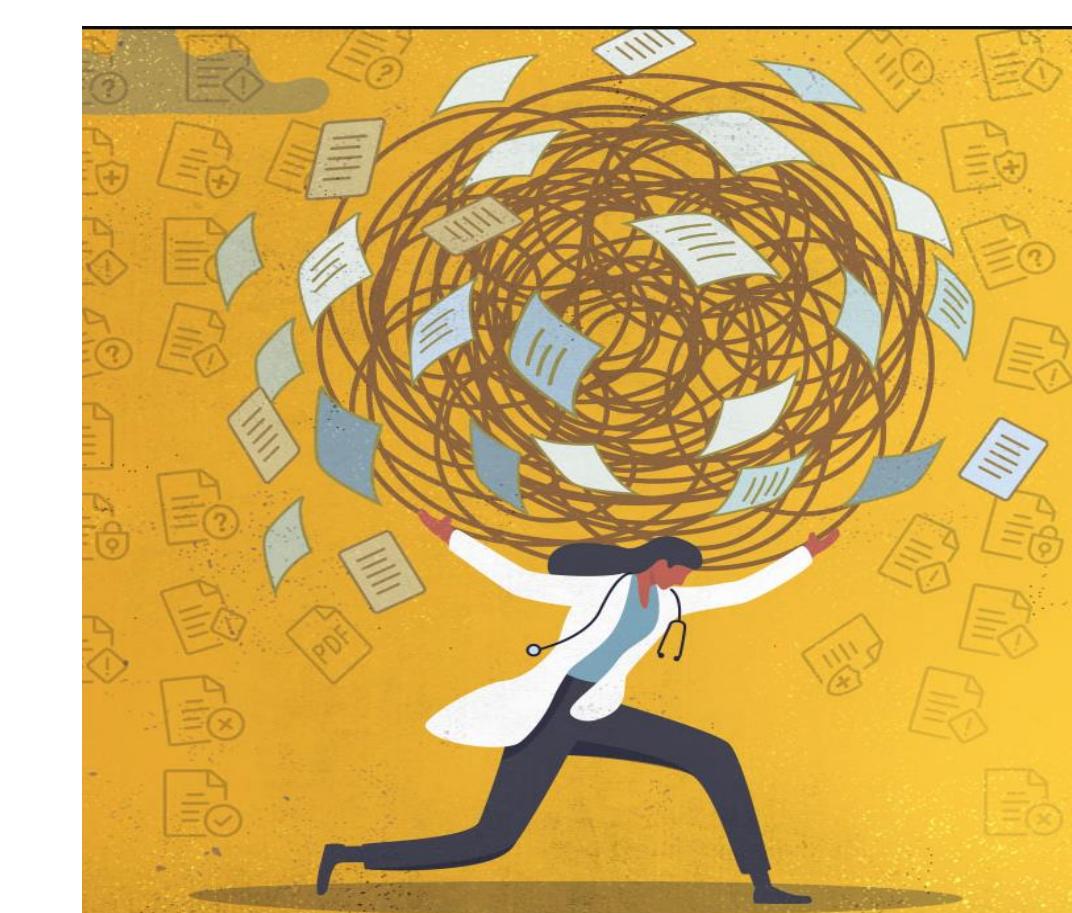
- This patient had a classic presentation in terms of dermatological findings and progressing muscle weakness for dermatomyositis.
- Her diagnosis was delayed due to pictures sent directly to the in-basket only of her hands without more history.
- In this case the in-basket messaging limited the context of the classic history and physical exam findings which led to delay of labs and ultimately treatment.

## Outcome and Follow Up

- As an outpatient patient had a complete malignancy work up
- Routine pap smear showed atypical squamous cells of undetermined significance and HPV 6&7 positive, colposcopy showed low grade squamous intraepithelial lesion (CIN 1), OBGYN recommended repeat pap smear in 1 year.
- Repeat mammogram was BI-RADS 2 Benign.
- Seen by pulmonology for pulmonary nodules recommended follow up CT Chest in 1 year.
- Upper and lower endoscopy normal.
- Neurology slowly tapering steroids and following symptoms closely.
- Following with dermatology closely.
- Strength has returned to 5/5 throughout and rash has improved but not resolved.
- Pt still on methotrexate 20 mg po once weekly with 1 mg folic acid supplementation and prednisone 2.5 mg po daily.
- Due to continued disease activity in the skin dermatology recommended IVIG again 9 months after initial diagnosis.

## Take Home Points

- Recognize that although inbox messaging is convenient for patients it can be more difficult for providers to accurately make a diagnosis and it can ultimately lead to delay in treatment.
- Be vigilant of messages sent by patients and if any clinical concern bring them in to be seen.
- Patients can send an overwhelming amount of messages through the in-basket and it is important to be able to triage messages and have a clinical team in place to help sort through them
- Be able to recognize severity of disease and when it is appropriate to send patients to the emergency room for further work up and treatment.



## References:

- <sup>1</sup>Didona D;Solimani F;Caposiena Caro RD;Sequeira Santos AM;Hinterseher J;Kussini J;Cunha T;Hertl M;Didona B; (n.d.). Dermatomyositis: A comprehensive review of clinical manifestations, serological features, and therapeutic approaches. Italian journal of dermatology and venereology.
- <sup>2</sup>Fogg, J. F., & Sinsky, C. A. (2023). *In-basket reduction: A multiyear pragmatic approach to ...* NEJM Catalyst. <https://catalyst.nejm.org/doi/full/10.1056/CAT.22.0438>