CHARACTERIZING PATIENTS WITH DERMATOMYOSITIS FROM 2011-2021 AT A TERTIARY CARE CENTER

Tess N. Engel[1] BS, Callie M. Roberts[1] BS, Danielle M. Tartar MD, PhD [1]
1. Department of Dermatology, University of California Davis, Sacramento, California, USA

Introduction

Dermatomyositis (DM) is the most common idiopathic inflammatory condition defined by distinct skin manifestations and varying systemic manifestations [1]. Due to its heterogeneity, the true prevalence is difficult to determine, but current estimates are between 1/10,000-50,000 persons.[2],[3]

The **cutaneous manifestations** of dermatomyositis can be defined as:[1]

- Pathognomonic: Gottron papules, Gottron sign, and heliotrope rash
- Characteristic: nailfold changes, shawl sign, V-sign, Holster sign and scalp involvement
- Compatible: poikiloderma, periorbital edema and facial swelling.
- Less common: vesiculobullous, necrotic or ulcerative lesions, cutaneous vasculitis, and calcinosis cutis
- Rare: mechanic's hands, flagellate erythema, deck chair sign, follicular hyperkeratosis, panniculitis, mucinosis, erythroderma, and oral mucosal changes
- Nonspecific: Raynaud

Systemic manifestations are variable, including myopathy, cardiopulmonary involvement, gastrointestinal disease, and malignancy.

Methods and Materials

- Patients aged 18 or greater with an ICD 10 (M33.10) diagnosis of dermatomyositis from May 1st, 2011 to May 1st, 2021 were selected from electronic medical records.
- 185 charts resulted, 21 were excluded based on diagnosis of juvenile dermatomyositis prior to age 18. Eight individuals were excluded due to physician-documented rule-out of dermatomyositis.
- The remaining 156 individuals were included in statistical analysis.

References

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3. Orphanet: Dermatomyositis. n.d. https://www.orpha.net/consor/cgi-bin/OC_Exp.php?lng=EN&Expert=221
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Results

Table 1. Demographics

Demographic	Value (percent) N = 156
Age (years)	Mean 59.4
Legal sex:	
Female	106 (68.0)
Male	50 (32.1)
Race/Ethnicity:	
African American or Black	18 (11.5)
Asian	8 (5.13)
Hispanic or Latino	21 (13.5)
White	87 (55.8)
Unknown	22 (14.1)

Table 2. Medical conditions prior to DM diagnosis

Pre-existing medical conditions	Number (percent) N = 156
Type 2 diabetes mellitus	37 (23.7)
Hypertension	84 (53.8)
Dyslipidemia	56 (35.9)
GERD	57 (36.5)
Depression	39 (25)
History of tobacco use	53 (34.0)
Other autoimmune disease	69 (44.2)
Family history of autoimmune disease	34 (21.8)

Table 3. Cutaneous findings of DM

Cutaneous finding	Number (percent) N = 156
Gottron papules	79 (50.6)
Nail fold changes	46 (29.5)
Heliotrope rash	45 (28.8)
V-sign	42 (26.9)
Shawl sign	36 (23.1)
Gottron sign	26 (16.7)
Scalp changes	20 (12.8)
Holster sign	12 (7.7)
Mechanic's hands	12 (7.7)
Calcinosis cutis	3 (1.9)

Table 4. Systemic findings in DM

Systemic Finding	Number (Percent) N = 156
Pulmonary involvement	39 (25)
Presence of dysphagia	24 (15.4)
Cardiac involvement	6 (3.9)

Table 5. Reported biopsy findings

Skin biopsy finding	Number (percent) N = 65
Interface dermatitis	63 (96.9)
Perivascular dermatitis	15 (23.1)
Increased mucin	20 (30.8)
Thickened basement membrane	5 (7.7)

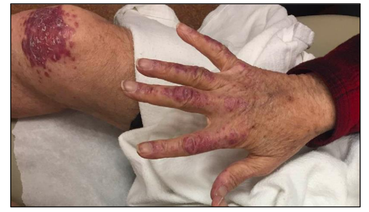

Figure 1. Gottron papules and Gottron sign

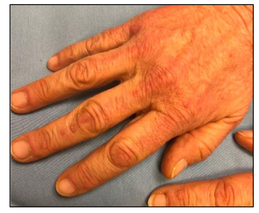

Figure 2. Gottron papules

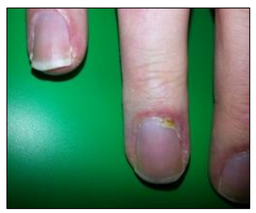

Figure 3. Ragged, red cuticles

Discussion

We describe a diverse population [4] of individuals with dermatomyositis and varied disease presentations. In our study, the most common cutaneous manifestation was Gottron papules, and the most common cutaneous histopathologic finding was interface dermatitis. The most common systemic finding was interstitial lung disease, which correlated with race/ethnicity.

Strikingly, only 53.2% of patients received care from dermatologists. As such, documented cutaneous features and histopathology results were limited (42% were biopsied). Additionally, 25% of our patients had clinically documented depression (39/156). Taken together, this study highlights the need for more multidisciplinary care of this population.

Conclusions

Dermatomyositis is a variable disease that can be difficult to diagnose. Co-management of patient care can promote rapid diagnosis and appropriate treatment for best outcomes. Further studies with larger cohorts are needed to refine knowledge on DM etiology, disease presentation, and prognostic indicators.