DART Clinic Review: Experiences from a combined dermatology and rheumatology clinic

Michael Samycia¹, Collette McCourt², Kam Shojania⁴, Sheila Au¹,³

¹ Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada
² Department of Dermatology, Royal Victoria Hospital, Belfast Health and Social Care Trust, Belfast, N.I.
³ Division of Dermatology, Department of Medicine, St. Paul’s Hospital and Providence Health Care, Vancouver, Canada
⁴ Division of Rheumatology, Department of Medicine, St. Paul’s Hospital and Providence Health Care, Vancouver, Canada

Learning Objective:
To gain awareness of the common dermatologic conditions that rheumatologic patients are experiencing.

Take-Away Messages:
1. Dermatitis, psoriasis, cutaneous lupus and alopecia are highly represented in rheumatologic patients seen in our clinic.
2. Skin problems in rheumatologic patients may not be related to the underlying condition.
3. Rheumatologists and dermatologists can both benefit from being aware of the dermatologic conditions that rheumatologic patients are experiencing.

Declaration of conflict: No authors have any conflicts to declare that would impact this project

Contact: michaelsamycia@gmail.com 604.240.2469
Background

- There is considerable overlap between many dermatologic and rheumatologic conditions
  - Lupus, psoriasis, scleroderma, dermatomyositis
- Diagnosis and management of these conditions are complex and often require multi-disciplinary collaboration
- The combined Rheumatology and Dermatology Treatment Clinic (DART Clinic) in Vancouver is a novel multi-disciplinary clinic, where patients are concomitantly assessed by both a rheumatologist and dermatologist.
- It is attended by Dr. Sheila Au, Dr. Kamran Shojania as well as rheumatology and dermatology residents.
- We also take family practice, physiatry, and oral medicine and pathology residents.
- Initially a ½ day clinic, the clinic now sees 15-20 patients, 1 day per week.

Objectives and Methods

- The purpose of this study is to gather information to be used for quality improvement and to help guide the education of rheumatologists, dermatologists, residents and medical students in our clinic.
- We retrospectively reviewed the charts of all DART patients from the two-year period, July 2011 to June 2013.
- The data collected includes: patient age, gender, dermatologic diagnosis, rheumatologic diagnosis, biopsies performed, treatment, number of follow-up visits, and co-morbidities.

Results

- Total Patients Seen - 320
  - Median Age - 48 yo
- Female Patients - 248
  - Median Age - 46.5 yo
- Male Patients - 72
  - Median Age - 49 yo
- 78 Patients had skin biopsies
• 30 different rheumatologic diagnoses were recorded. SLE and RA were the most common with majority of the patients being female (red = women, blue = men).
• * UCTD comprises a subset of patients who have features of connective tissue disease such as rash, arthritis, and positive immunologic markers, but do not yet fit into a specific disease category.
• **No Diagnosis was recorded for patients who had been referred for a possible CTD but were found to have none.
• 43 dermatologic diagnoses or diagnostic categories were recorded
• Major diagnostic categories and examples of the conditions seen are listed below:
  • Dermatitis - allergic/irritant contact dermatitis, periorificial dermatitis, lichen simplex chronicus
  • Alopecia - alopecia areata, androgenetic alopecia, scarring alopecia, telogen effluvium
  • Infection - EBV, HSV, VZV, HPV, polyoma virus, bacterial
  • Fibrosing conditions - Morphea, en coup de sabre, systemic sclerosis, eosinophilic fasciitis
  • Pigmentary disorders - drug induced, melasma
## Results

The following tables demonstrate the different dermatologic conditions seen in specific rheumatologic patients:

### Dermatologic diagnoses seen in psoriatic arthritis

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psoriasis</td>
<td>76%</td>
</tr>
<tr>
<td>Dermatitis</td>
<td>10%</td>
</tr>
<tr>
<td>Dermatophyte</td>
<td>5%</td>
</tr>
<tr>
<td>Skin Cancer</td>
<td>2%</td>
</tr>
<tr>
<td>Pigmentary disorder</td>
<td>2%</td>
</tr>
<tr>
<td>Infection</td>
<td>2%</td>
</tr>
<tr>
<td>Chilblains</td>
<td>2%</td>
</tr>
<tr>
<td>Benign skin lesion</td>
<td>2%</td>
</tr>
<tr>
<td>Actinic keratosis</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Dermatologic diagnoses seen in SLE

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutaneous Lupus</td>
<td>29%</td>
</tr>
<tr>
<td>Dermatitis</td>
<td>16%</td>
</tr>
<tr>
<td>Acne</td>
<td>14%</td>
</tr>
<tr>
<td>Alopecia</td>
<td>12%</td>
</tr>
<tr>
<td>Rosacea</td>
<td>9%</td>
</tr>
<tr>
<td>Pigmentary disorder</td>
<td>9%</td>
</tr>
<tr>
<td>Chilblains</td>
<td>7%</td>
</tr>
<tr>
<td>Skin cancer</td>
<td>3%</td>
</tr>
<tr>
<td>Infection</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Dermatologic diagnoses seen in RA

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erythema Nodosum</td>
<td>24%</td>
</tr>
<tr>
<td>Rheumatoid Nodule</td>
<td>16%</td>
</tr>
<tr>
<td>Skin Cancer</td>
<td>10%</td>
</tr>
<tr>
<td>Dermatophyte</td>
<td>10%</td>
</tr>
<tr>
<td>Pigmentary disorder</td>
<td>8%</td>
</tr>
<tr>
<td>Actinic Keratosis</td>
<td>6%</td>
</tr>
<tr>
<td>Alopecia</td>
<td>4%</td>
</tr>
<tr>
<td>Rosacea</td>
<td>4%</td>
</tr>
<tr>
<td>Benign skin lesion</td>
<td>4%</td>
</tr>
</tbody>
</table>
# Results

These tables demonstrate the different rheumatologic conditions seen with certain dermatologic diagnoses.

### Rheumatologic diagnoses seen with psoriasis

- **Psoriatic arthritis**: 78%
- **No Diagnosis**: 5%
- **Undifferentiated CTD**: 5%
- **Fibrosing Conditions**: 3%
- **IBD arthritis**: 3%
- **Osteoarthritis**: 3%

### Rheumatologic diagnoses seen with dermatitis

- **Rheumatoid Arthritis**: 20%
- **No Diagnosis**: 15%
- **SLE**: 15%
- **Undifferentiated CTD**: 10%
- **Psoriatic Arthritis**: 7%
- **Arthritis NYD**: 5%
- **Osteoarthritis**: 5%
- **Sjogren's syndrome**: 5%

### Rheumatologic diagnoses seen with alopecia

- **Systemic LE**: 33%
- **Rheumatoid Arthritis**: 24%
- **Undifferentiated CTD**: 14%
- **Arthritis NYD**: 5%
- **Ankylosing Spondylitis**: 5%
- **Fibrosing Conditions**: 5%
- **Uveitis**: 5%

### Rheumatologic diagnoses seen with cutaneous lupus

- **Systemic LE**: 72%
- **Cutaneous Lupus only**: 15%
- **Undifferentiated CTD**: 8%
- **Mixed CTD**: 4%

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These tables summarize the prevalence of various rheumatologic conditions associated with different dermatologic diagnoses.
Take home messages

1) Dermatitis, psoriasis, cutaneous lupus and alopecia are highly represented in rheumatologic patients seen in our clinic.
2) Skin problems in rheumatologic patients may not be related to the underlying condition.
3) Rheumatologists and dermatologists can both benefit from being aware of the dermatologic conditions that rheumatologic patients are experiencing.

What’s Next?

- We have completed a patient satisfaction survey and are currently compiling our results. Next, we hope to survey referring physicians.
- Using the data we collected, we have already begun altering educational seminars for rheumatology and dermatology trainees. For example, teaching rheumatology residents diagnosis and management of conditions such as alopecia and dermatitis.
- Funding has been obtained for practicing dermatologists and rheumatologists to spend preceptorship time in the clinic.
- More collaborative projects and publications.

Cutaneous Olyarteritis Nodosa  Discoid Lupus

Erythema elevatinum diutinum  Pustular psoriasis from anti-TNF-a
Thank you