Summer AAD
Practice Gaps in Dermatology

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Practice Gaps in Adult and Pediatric Dermatology: Illustrative Cases
Disclosures

- Relevant Financial Relationship(s)
  - None
- Off Label Usage
  - This entire talk
Aim

- To share 7 cases which demonstrate practice gaps in Dermatology
Practice Gaps

- Psychodermatology
- Vascular Conditions
- Atopic Dermatitis and Food Allergies
- Pain syndromes in Dermatology
- Conditions needing multidisciplinary care
- Non-dermatologic dermatologic conditions
Case 1
The patient complains of fibers coming from her skin and insects jumping off her skin.
This one from my face

Cleaning my face with a lotion

From my neck

Head bath arom
The Story

- She is avoiding contact with her children, grandchildren and friends because she is concerned she will transmit this infestation.
- ‘My life is miserable because of these symptoms’
- ‘I’ve been to 6 different university clinics and no-one can help me; they all say it’s in my mind. They’re the crazy ones, not me. They don’t have a clue. Look at these fibers and insects’
- ‘Don’t dare tell me this is in my head’
Your clinical impression is Delusional Infestation. Of the following, what is the best management of this patient?

1. Confront the patient and advise there are no fibers or insects coming out of the skin
2. Obtain a skin biopsy and treat empirically for insects (permethrin/ivermectin)
3. Do not confront the patient; ‘I don’t know what’s going on but let’s try a drug to help you deal with the stress of all this’ - start oral risperidone 1mg daily
4. Tell her ‘I know what you’re doing, you know what you’re doing, so stop doing it’
5. Explain that she is doing it to herself, this is not a skin condition, and it would be best if she went to a psychiatrist
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Practice Gap

- Not knowing how to deal with patients with delusional infestation
- Not having an approach to investigation and management
Practice Gap

- Patients want their dermatologists to manage their condition
  - Won’t go to psychiatrists
- Dermatologists don’t want to manage their condition
  - Want to refer them to psychiatry
- Management of secondary causes may improve delusions
  - Anxiety, depression,
  - ADHD meds, opioids
  - Skin disease
**Discussion**

**Delusional Infestation**

- **Infestation**
  - Patients see ‘fibers’ and other inanimate material emerging from their skin as often as ‘parasites’
  - Hence ‘delusions of parasitosis’ renamed to ‘delusional infestation’ (broader term)

- **Delusion: fixed false belief**
  - ‘Fixed’ = lack of insight; unchangeable
    - Do not challenge patient on the diagnosis
    - Patients often extremely resistant to psychiatry referral
Discussion

- More common than you might think!
For years, entomologists have insisted that these delusions aren’t as rare as psychiatrists and the public may think. And now, a study by the Mayo Clinic suggests they’re right. The first population-based study of the condition’s prevalence suggests that about 27 out of a hundred thousand Americans a year have delusions of an infestation. That would mean around 89,000 people in the U.S. right now are plagued by the condition.
Workup

- **History**
  - Spotting secondary causes
    - Medical comorbidities/electrolyte abnormalities
    - Medications- ADHD medications, opioids
    - Psychiatric comorbidities
      - Depression, anxiety, PTSD, schizophrenia, other psychoses, dementia
        - PHQ-9, GAD-7 and AUDIT-10
  
- **Exam**
  - Anything to account for symptoms?
Management
Secondary Delusional infestation

- Manage comorbidities
  - Medical/Dermatologic
  - Psychiatric
    - Anxiety, depression, PTSD, dementia
  - Medications
    - Stop or decrease opioids, ADHD medications
Primary Delusional infestation

- **Goal of treatment**
  - decrease preoccupation with the delusion
  - improve social and occupational functioning

- **Treatment works if patients will take it**
  - Engaging the family may help
  - Unless folie a deux or more
    - Trois, Quatre, Cinq!

- **Some commonly used antipsychotic agents**
  - Risperidone, olanzapine, pimozide
  - Risperidone 1-6 mg daily (start with 1mg daily) is a common choice
    - low cost, good efficacy, and tolerability
Management tips
Primary delusional infestation

- Establish rapport
  - Multiple visits- one for history, one for lab tests, one for biopsy, then broach treatment?
- Don’t debate whether there are bugs/fibers
- Ask the patient if they want treatment for the symptoms if we’re unable to find the cause of the bugs/fibers
- Prescribe anti-psychotics
  - Patients don’t want to go to psychiatrist
  - Risperidone, olanzapine, pimozide
Case 2
A patient on hemodialysis
A patient on dialysis for chronic renal failure suddenly develops extraordinarily tender painful ulcerations involving legs, thighs and abdominal pannus. Which of the following statements are most accurate about this condition?

1. Corticosteroids are the treatment of choice.
2. Surgical excision of the affected areas should be immediately performed.
3. The prognosis of this condition is dismal, and there is no treatment that consistently works.
4. Sodium thiosulfate leads to a predictable improvement in this condition.
5. Parathyroidectomy will usually be curative.
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Practice Gap
Calciphylaxis is often not recognized

- Under-recognized syndrome
  - Occurs in 4% of hemodialysis patients
- The prognosis is dismal
  - 1-year survival: 46%
  - 2-year survival: 20%
‘One of the worst ways to die’
Practice Gap: Calciphylaxis
The pathophysiology is fundamentally misunderstood
Practice Gap
No one knows how to manage calciphylaxis but since it’s a skin condition we are expected to guide treatment

- No treatment has been shown to help consistently
  - Treatment strategies:
    - Wound care, surgical debridement
    - Consider anticoagulants, thrombolysis
      - Avoid warfarin
    - Correct Calcium/Phosphate levels
      - Sodium thiosulfate
    - Pain control/palliative care
    - Multidisciplinary care
Practice Gap

- Calciphylaxis is a vascular condition with a poor prognosis
- Not just a calcium/phosphate balance problem
Case 3
Case

- 41 year old female
- 2 year history of extremely painful pinpoint ulcerations on feet
- Stellate white scars
- Normal pulses
- Arterial and venous studies are reported as normal
- No response to wound care, compression therapy
Question
Which would this ulcer be most likely to respond to?

1. Escalation of wound care to ‘smart’ wound dressings
2. Revascularization of the limb
3. Intermittent compression boot
4. Oral antibiotics
5. Initiation of antiplatelet or anticoagulant therapy
Question
Which would this ulcer be most likely to respond to?

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2. Revascularization of the limb
3. Intermittent compression boot
4. Oral antibiotics
5. *Initiation of antiplatelet or anticoagulant therapy*
Discussion

- Ulcers associated with livedoid vasculopathy
  - shallow pinpoint ulcerations
  - "atrophie blanche" scars - stellate, white scars
- Biopsies: thrombosis of dermal blood vessels
- Numerous heterogeneous coagulation abnormalities
- Case reports of response to anticoagulation
  - Warfarin
  - Low MW heparin
  - Rivaroxaban, newer anticoagulants

Practice Gaps
Livedoid vasculopathy

- Livedoid vasculopathy is often overlooked as a possible cause for painful leg ulcerations.
- Anticoagulation and antiplatelet agents are sometimes helpful for these leg ulcerations.
Case 4
The patient complains that the soles of her feet are intermittently excruciatingly painful, red and hot. You examine her and the feet are normal. What is the most appropriate management?

1. Tell her it’s all in her head and send her to a psychiatrist
2. Start gabapentin
3. Advise a pain rehabilitation program
4. Start aspirin daily
5. Consider topical treatments
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4. Start aspirin daily
5. **Consider topical treatments**
The foot and hand disorder I am about to describe may be conveniently labelled Erythromelalgia; ἰρυθρός, red; μέλος, a member; ἀλγέ, pain.

No. CLI.—July 1878.

...cases from the mildest to the most severe; and end by discussing them from such points of view as they may suggest.

The patient, nearly always a man, after some constitutional disease, like a low fever, or after prolonged physical exertion at foot, begins to suffer with pain in the foot or feet; usually it comes in the ball of the foot, or of the great toe, or in the heel; and from these parts it extends so as to involve a large portion or all of the sole, and to reach the dorsum, and even the leg. More often it is felt finally in a limited region of one or both soles, and does not extend beyond these areas. At first it is felt only to...
Practice Gap

- Erythromelalgia is underdiagnosed/under-recognized
  - Most often patients state they made the diagnosis by internet search
Discussion

- Erythromelalgia/Erythermalgia
- Syndrome describing Red (erythros) Hot (thermos) Painful (algia) Extremities (melos)
- Hot red feet Patients use cold water or ice to relieve discomfort
Erythromelalgia

“Hot legs....”
Practice Gap

- Underlying neuropathy is common
  - Large fiber - EMG
  - Small fiber - needs specialized testing
- Small fiber neuropathy is a new area in neurology
- Many dermatologists are not aware of this
Practice Gap
How do I test for small fiber neuropathy?

- Skin Biopsy
- Physiologic tests
  - Tests of sweating
    - QSART
    - Thermo regulatory sweat tests
  - Autonomic reflex screen
    - QSART
    - Valsalva manoeuvre
    - Tilt-table test
Patients with erythromelalgia Don’t Sweat!

Thermoregulatory Sweat Testing in Patients With Erythromelalgia

Mark D. P. Davis, MD; Joseph Genehriera, MD; Paola Sandroni, MD; Robert D. Fealey, MD
Practice Gap

- Patients are often told that it’s okay to cool the affected areas
  - They overdo it
Erythromelalgia
Practice Gaps in Management

- Patients are most often prescribed oral treatments
  - anticonvulsants, tricyclic antidepressants
  - Gabapentin, pregabalin
- But many get by with topical treatments
  - Lidocaine patches
  - Amitriptyline 2%/ketamine 0.5% cream
- Those who are very severely affected may benefit from pain rehabilitation program
Practice Gap

Erythromelalgia is a form of pain syndrome.
Other vascular disorders

- Facial flushing
- Acrocyanosis
Case 5
The patient complains of burning pain involving her tongue, severity 10/10
The most important management strategy is

1. Symptomatic relief
2. Mouth hydration
3. Oral antifungal medications
4. Narcotic medications
5. Alpha-lipoic acid
The most important management strategy is

1. **Symptomatic relief**
2. Mouth hydration
3. Oral antifungal medications
4. Narcotic medications
5. Alpha-lipoic acid
Practice Gap in Dermatology
Pain syndromes

- Burning mouth
- Burning skin
- Vulvodynia
- Erythromelalgia
Management

- Look for secondary causes
  - Treat secondary causes
- Manage symptomatically
Secondary Causes of burning mouth syndrome

Examples

- Xerostomia
  - Aging, mouth breathing, coffee, tea, alcohol
- Trauma
  - Biting, tongue-thrusting
- Infection
  - Candidiasis
- Inflammation
- Neoplasm
- Neurologic
Burning mouth syndrome
General management

- Keep mouth hydrated
- Bland Diet
- Gentle dental care
- Avoid oral habits
  - Tongue-biting etc
Burning mouth syndrome
Specific management

- **Topical treatment**
  - Lidocaine
  - Analgesic mouthwashes
  - Clonazepam suck & spit

- **Systemic treatment**
  - Alpha lipoic acid
  - Gabapentin
  - Pregabalin
Case 6
The patient has severe atopic dermatitis

- Lifelong
- Treated with
  - Prednisone
  - Corticosteroid ‘injections’
  - Diet- elimination diets
  - On methotrexate in past
  - Phototherapy
- Topical prescription creams ‘don’t work’
- Itching 10/10 today, unable to sleep the past week
What would you suggest for control of her itching and atopic dermatitis?

1. Prednisone 60 mg daily
2. Azathioprine 100 mg daily
3. Initiation of Etanercept 50 mg sq twice weekly
4. Intensive topical treatments
5. Test for food allergy and start a diet based on the results
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Wet Dressings work!
Registered Nurse Pearl Hendricks attends to a patient covered in wet dressings. The dressings used ten yards of bandages per leg and five per arm, and were changed every three hours.
How do we do wet dressings?

- Simply put:
  - Wear wet PJ’s /longjohns or
  - Wear dry PJ’s/longjohns and get them wet
  - Keep warm
Possible mechanisms of action

- hydration of the stratum corneum
- cooling of the skin
- vasoconstriction
- removal of scales/crust
- reduction in local bacterial counts
- physical barrier against scratching
- improved sleep because of a reduction in -related discomfort
- Enhanced topical corticosteroid penetration
Practice Gap

- Wet dressings or their equivalent are used more these days in kids with atopic dermatitis.
- But they are rarely used for adults!
- They work!
- Prednisone is overused.
Just under 48 hours later…
Practice Gap

- Intensive topical treatments are underutilized in Dermatology
- Prednisone and Kenalog are overutilized
- RAST testing does not have a place
- Wet dressings are very effective for controlling pruritus in a wide variety of dermatoses in both children and adults
Summary
Practice Gaps in Dermatology

- Psychodermatology
  - Managing patients with delusional infestation

- Vascular Disorders
  - Calciphylaxis
    - Recognizing this entity
    - Considering critical role of thrombosis
  - Livedoid vasculopathy
    - Arteriolar ulcerations that respond to anticoagulants

- Flushing disorders
  - Facial flushing
  - Erythromelalgia
Summary

Practice Gaps in Dermatology

- Pain syndromes
  - Erythromelalgia
  - Burning mouth syndrome
  - Burning skin
  - Vulvodynia
- Atopic Dermatitis
  - Topical management works
  - Systemic corticosteroids are overutilized
  - Avoid testing for food allergy
  - Avoid diets
Thank You!
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