Medical and Diagnostic Pearls
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Mount Sinai gets dollars from:

- Abbvie
- Amgen
- Boehringer Ingelheim
- Celgene
- Eli Lilly
- Janssen / Johnson & Johnson
- Kadmon
- Medimmune/Astra Zeneca
- Novartis
- Pfizer
- ViDac.

Consultant

- Allergan
- Dr. Reddy
• Pruritus in the elderly
• Lichen planus
• Ostomies
• Raynaud’s phenomenon
• Optimal phraseology for patients
• Actinic Keratoses
• Local anesthesia alternatives
• Tool tips
• Management of bleeding
• Patient with hyperverbia profundia
• Ocular rosacea
• Gingival hyperplasia
• Drug sampling
• Lyme disease
• Defibrillators
• Nickel allergy
• Atopic dermatitis
Schmutz JL, Barbaud A, Tréchot P. 
ACE-I induced angioedema: a case report and review of literature.
Adebayo PB, Alebiosu OC.
Angiotensin-converting enzyme inhibitors as inducers of adverse cutaneous reactions.
Steckelings UM, Artuc M, Wollschläger T, Wiehstutz S, Henz BM.

Enalapril and vulvovaginal pruritus.
Heckerling PS.
Rash, eosinophilia, and hyperkalaemia associated with enalapril.
Barnes JN et al.

[Captopril-induced eruptions: occurrence over a 3-year period]
Lichen planus is a pruritic papulosquamous disease with characteristic histopathologic and clinical features. Oral erosive lichen planus, a painful erosive condition that can affect mucous membranes, is addressed in a separate chapter.

MANAGEMENT STRATEGY

Although lichen planus can resolve spontaneously, treatment is usually demanded by patients, who can be severely symptomatic. Underlying diseases such as hepatitis C or associated drugs should be sought.

In patients with localized disease, superpotent corticosteroids should be applied twice daily for 2-4 weeks. If the response is inadequate, intralesional injection of corticosteroids into localized lesions may be beneficial. Topical antipruritic agents containing menthol, phenoxybenzamine, pramoxine or desoxycorticosterone hydrochloride can be useful. Oral antihistamines may offer limited benefit in severely pruritic patients. Sedating antihistamines are helpful at bedtime.

Traditionally, patients with extensive lichen planus have been treated with systemic corticosteroids. In recent years, oral methotrexate has emerged as a safe and effective alternative to systemic corticosteroids. 500 mg daily for 20-60 days has proved effective in many patients. In patients who do not respond, oral prednisone 30-60 mg daily for 2-6 weeks, or its equivalent, tapered over the ensuing 2-6 weeks, is often effective. Unfortunately, even in patients who clear with systemic corticosteroids, relapses are frequent. If patients require more than two courses of high-dose systemic corticosteroids over the span of a few months, alternative treatments should be sought.

Methotrexate in doses of 10 mg orally twice daily for 2 months has been reported to clear lichen planus in several patients, and actiin 30 mg has also resulted in marked improvement or remission. In refractory cases, paroxymal or UVB (PUVA) or narrowband UVB has demonstrated efficacy in the treatment of lichen planus. PUVA has been particularly beneficial in the lichen planus-like eruption associated with graft-versus-host disease. For severe and refractory lichen planus unresponsive to other therapies, immunosuppressive agents, including cyclosporine, mycophenolate mofetil, or azathioprine, are often effective.

SPECIFIC INVESTIGATIONS

- Serology for hepatitis B and C
- Liver function tests
- Drug history


Lichen planus was found in 2.3% of 171 hepatitis C virus-seropositive patients, compared to no cases in 171 age- and gender-matched controls.

The association between hepatitis C virus and lichen planus has been controversial, with an association reported in some studied populations but not others.


Six of 44 patients with lichen planus had abnormal liver function tests, and five of the six were found to have chronic active hepatitis on liver biopsy.


β-Blockers, methyldopa, penicillamine, quinidine, quinine, and non-steroidal anti-inflammatory agents play a role in the development of lichen planus. There is insufficient evidence to implicate angiotensin-converting enzyme inhibitors, sulfonamide agents, carbamazepine, gold, lithium, and other drugs.

Many drugs and chemicals have been associated with lichenoid drug eruptions, which can be difficult to distinguish from true lichen planus. In addition to those mentioned above, hepatitis B and influenza vaccinations, sulfonamides, tetracyclines, furosemide, hydrochlorothiazide, nonsteroid, phenytoin, and tetracycline are reported to cause lichenoid eruptions.
FIRST-LINE THERAPIES

- Topical corticosteroids
- IntraleSIONal corticosteroids
- Antihistamines
SECOND-LINE THERAPIES

- Metronidazole
- Systemic corticosteroids
- Isotretinoin, acitretin
- Narrowband or broad band UVB
- PUVA
Oral metronidazole treatment of lichen planus.

Büyük AY, Kavala M.


- Metronidazole 500 mg bid x 20-60 d.
- 15/19 (79%) improved
- 13/15 → complete clearing

- sulfasalazine up to 2.5g/d vs. placebo x 6w
- lesion improvement 82.6% vs. 9.6%
- pruritus improvement 91.3% vs. 14.3%
- side effects 30.7% - GI and HA
“Small fistula tracks … from which pus could be obtained on pressure.”

Brunsting LA, Goeckerman WH, O'Leary PA
Arch Dermatol Syph. 1930; 22:655
If you’re confident about a patient’s diagnosis and treatment, let them know you see a lot of this condition and know exactly how to deal with it.

- Mycosis fungoides/CTCL
- Perioral dermatitis

- Both work
- Diclofenac less irritating
Imiquimod 5% cream for the treatment of actinic keratosis: results from two phase III, randomized, double-blind, parallel group, vehicle-controlled trials.


imiquimod cream biw x 16w.
Ingenol mebutate gel for actinic keratosis.

Composite LSR Scores\textsuperscript{a} Through Day 57: Safety Population

Mean composite LSR scores peaked at day 4 and returned to baseline levels by day 15.

\textsuperscript{a}The composite LSR score represents the sum of the scores for the 6 specific types of LSRs graded from 0 to 4, with a maximum score of 24 at each study visit.
Long-term follow-up of photodynamic therapy with a self-adhesive 5-aminolaevulinic acid patch: 12 months data.

Szeimies RM, et al

• PDT – 1 rx: 63% and 79% efficacy at 1 yr
• Placebo PDT: 9% and 25%
• Cryosurgery: 63%
A randomised study of topical 5% imiquimod vs. topical 5-fluorouracil vs. cryosurgery in immunocompetent patients with actinic keratoses: a comparison of clinical and histological outcomes including 1-year follow-up

Krawtchenko N, Roewert-Huber J, Ulrich M, Mann I, Sterry W, Stockfleth E.

*British Journal of Dermatology.*

• Cryo 20-40 sec per lesion x 1-2 sessions
• 5FU bid x 4w.
• Imiquimod tiw x 4 w. x 1-2 courses
Clinical Evaluation: Comparison of All Treatment Groups

Histological Confirmation: Comparison of All Treatment Groups

![Bar chart showing treatment outcomes]

- Imiquimod (n=26): 73% cleared, 27% persistent
- 5-FU (n=24): 67% cleared, 33% persistent
- Cryotherapy (n=25): 68% cleared, 32% persistent

p=.03 for 5-FU and p=.008 for imiquimod

Biopsies are checked by 2 independent histopathologists

Sustained Clearance of Initially Cleared Lesions in All Patients

Twelve months after end of treatment

Out of all treated patients (including in the denominator also those not cleared at end of therapy)

Severe refractory fingertip ulcerations in a patient with scleroderma: successful treatment with sildenafil.


- Atorvastatin 40/d vs placebo x 4 mos
- new ulcers: 1.6 vs 2.5
- ↓ RP, ↓ pain and severity of ulcers,
  ↓ endothelial damage markers
Botox therapy for ischemic digits.
Neumeister MW et al.

- 100 unit botulinum toxin vial diluted in 2cc preservative-free saline
- 50-100 U of toxin injected into palm around neuromuscular bundles at MCP
- pain relief was immediate
- ulcers healed within 2 months
- Doppler showed increased blood flow within 30 minutes
- pain relief persisted in 12/19 at 13-59 months
Management of vasospastic disorders with botulinum toxin A.

- 11 patients, painful Raynaud’s, digital ulcerations.
- Failed vasodilators, anti-platelet agents, and IV prostacyclin.
Botox 100 U at 8-10 sites, perivascular digital and palmar.

- Temporary hand weakness in 3 patients.
- All patients improved:
- Less frequent and less severe vasospasm and cyanosis within 48 hours.

**PreRx scores: 9-10**

**PostRx: 0-2**

Increased sensitivity to thermal pain and reduced subcutaneous lidocaine efficacy in redheads.

Liem EB et al. 

Anesthetic requirement is increased in redheads.
Liem EB et al.

Alternative Local Anesthetics

- **Diphenhydramine**
  - 50mg/mL (5%) Dilute 1:5 (1%)
  - Lasts ~20 minutes
  - Risk of necrosis and delayed sedation

- **Bacteriostatic saline w/0.9% benzyl alcohol**
  - Sufficient volume and pressure
  - Lasts ~2 minutes
Injectable sodium chloride as a local anesthetic for skin surgery.
Weiner SG

“parallel scalpel technique, razor technique, or curettage...punch biopsies and electrocautery techniques”
Diphenhydramine versus lidocaine as a local anesthetic.
Dire DJ, Hogan DE.

• No significant differences between 1% lidocaine and 1% diphenhydramine injections for local anesthesia.
Lidocaine versus diphenhydramine for anesthesia in the repair of minor lacerations.
Ernst AA, et al.

- 1% diphenhydramine more painful than 1% lidocaine, but anesthesia is equivalent
Reasons to Become a Registry Investigator

• Contribute to education/clinical knowledge of the psoriasis community
• Opportunity to establish a database of your patient population
• Academic recognition and publication opportunities
• Supplement existing insurance fee schedules
  – Site compensation is $400 (including $20 for patient) per Enrollment visit and $300 (including $20 for patient) per biannual Follow Up visit
If you are interested in participating in the Psoriasis Registry as a research investigator, please email psoriasis@corrona.org or visit www.corrona.org or call 508.408.5432.