A dash of dermatology and a pinch of rheumatology

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I have no conflicts of interest to disclose.
- Points in white = fun factoids
- Points in blue = important for clinical practice; practice gaps (basically what you want to remember from this talk)
Learning Objectives

- Some clinical pearls
  - Treatments – topical steroids, itch, misc
  - Diagnosis tips – by symptoms, morphology, location

- Update in Dermatology:
  - Biologics for Psoriasis - because many of your patients are on these meds now.
  - Treatments for Atopic dermatitis – finally something new!
Patient presents with this itchy rash, acute onset. He has apparently been weeding his garden. It’s spreading.
Itch in its many incarnations

- Poison ivy: can avoid oral steroids - use class 1 topical steroids TID, + maximal anti histamines.

- Maximize anti histamines =
  - Zyrtec/Claritin/Allegra bid, up to 4 tabs per day
  - plus Benadryl or Hydroxyzine qhs, with intent of sedation
  - useful for any itch/dermatitis.

- Poison ivy adjunct care: avoid re-exposure from all objects that may have been exposed AND forgotten. This is why the rash seems to get worse despite treatment, or spreads a lot, or recurs even though it was getting better

- Seb derm on scalp/psoriasis on scalp/dandruff/itchy scalp: Ketoconazole shampoo daily, clobetasol solution qd for 2-4 weeks
Topical steroids – don’t be afraid to use them

- One 80g tube of triamcinolone 0.1% ointment should cover 80% of cases where you would prescribe a topical steroid

- The other 10% need a larger amount: 454g ("one pound jar")

- The other 10% need a less potent steroid (i.e. hydrocortisone 2.5% ointment): eyelids, genitals, babies

- One tube (or tub if they have a whole body rash) is not going to be enough to give them skin thinning or any long term topical steroid sequelae

- Why ointments? They don’t sting
Misc. treatment pearls

- **Tinea versicolor:**
  > treat with Diflucan 400mg po x 2 doses, 1 week apart.

- **Pityriasis Rosea:**
  > Acyclovir 800mg 5 times /day x 1 week => 79% pts cleared by day 14


- **Hair loss:** check Ferritin, if < 50, start Fe supplementation for 6 months.
  Can help hair regrow, no matter the cause
DIAGNOSTIC PEARLS

- By symptoms
- By appearance of rash
- By location
DIAGNOSTIC PEARLS
By Symptoms

- **Rashes that don’t itch:**
  - Tinea versicolor
  - Pityriasis Rosea
  - Granuloma Annulare, Sarcoid (these are also more chronic)

- **Painful rashes:**
  > think blood vessels e.g. vasculitis/chilblains,
  > or fat – panniculitis e.g. E Nodosum

- **Hives:**
  > itch
  > AND always vary/move over 24 hrs. Individual hives do not last more than 24 hrs.
Grouped vesicles/papules pathognomonic for VZV or HSV
- VZV CAN span more than 1 dermatome
- If rash crosses midline, it’s NOT VZV
- Rash that recurs at exact same location = HSV
Linear array of vesicles/vesiculopapules = externally inflicted
Classic culprit is poison ivy.
Except Lichen Striatus which would be more chronic.
Itching in skin folds: groin/axillae/groin/web spaces, +/- any bumps = SCABIES until proven otherwise.
Neck rashes = induced/complicated by fragrance.
Rash on elbows/knees = Psoriasis or Granuloma Annulare.
Periumbilical rash = Nickel dermatitis. Recommend clear nail polish on buckles/snaps.
Rash IN umbilicus = Psoriasis
Facial Rashes that are confusing

**HELIOTROPE RASH**
- A/w Dermatomyositis.
- Purplish red/bruised appearing eyelids.
- Described as heliotrope, as they resemble the heliotrope flower - Heliotropium peruvianum, which has small purple petals.
Eyelid dermatitis – (eczematous or contact)

- Dry/scaly
- Lichenified
- Itchy
- Pinkish
Lupus rash

- Most “butterfly” rashes are Rosacea or Seborrheic dermatitis. Think of these first.
- Lupus is very photosensitive,
- Lack of Rosacea triggers
- Scaly
- Scarring
- Spares naso-labial folds and nasal tip
- Other SLE criteria are present
Vs. Rosacea

- On cheeks, nose including nasal tip, chin, forehead. Findings are:
  - Erythema
  - Erythematous papules, often acne like
  - Telangiectasias
- Clear triggers: alcohol, heat/sunlight, hot foods, spicy foods
Scaly

Spare nasal tip and naso-labial folds

On cheeks, nose (including nasal tip), chin:

- erythema,
- erythematous papules,
- telangiectasias
Psoriasis
- Well defined edges
- Red quality of erythema
- Much thicker scale
- Less seasonal variation

Seborrheic Dermatitis
- Less well defined borders
- Pinkish red - to no erythema
- Fine greasy scale
- Worse in fall/winter
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We know a lot about the pathogenesis of Psoriasis!
But still no cure in sight

GM-CSF, granulocyte-macrophage colony-stimulating factor; IL, interleukin.
BIOLOGICS for PSORIASIS

- To date 10 FDA approved:
  - **Anti-TNF:**
    - Infliximab (Remicade)
    - Etanercept (Enbrel)
    - Adalimumab (Humira)
    - Golimumab (Simponi)
    - Certolizumab (Cimzia)
  - **Anti IL-23/IL-12:**
    - Ustekinumab (Stelara)
  - **Anti IL-17a:**
    - Secukinumab (Cosentyx)
    - Ixekizumab (Taltz)
    - Brodalumab (Siliq)
  - **Anti IL-23:**
    - Guselkumab (Tremfya)

- At least 2 new meds coming out each year
- 1 non biologic medication: Apremilast (Otezla), the only oral
- Most of these also approved for Psoriatic Arthritis: affects 1 in 3 psoriasis patients.
Apremilast: Oral phosphodiesterase 4 Inhibitor
Same drug class as Theophylline

PDE-4, phosphodiesterase-4.
So your patient is on a Psoriasis biologic, what do you need to know for daily clinical practice?

**IMMUNOSUPPRESSION!**

1. Infection risk
2. Pre-op clearance
3. Vaccinations
4. Malignancy risk
1. If patients develop serious infections (usually defined as an infection that requires antibiotic therapy) while being treated with a biologic agent, hold the biologic until the infection has resolved*

2. Anti-TNF’s: reactivation of TB, HBV and opportunistic infections – fungal, mycobacterial, protozoan. (we screen patients annually with Quantiferon tests).

3. Anti- IL 12/23: viral infections, UTI’s, osteomyelitis, diverticulitis, gastroenteritis.

4. Anti-IL 17a: increased candida, HSV.

* Amer Acad Derm General principles for patients treated with biologics
2. PRE-OP CLEARANCE

HOT OFF THE PRESS!


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Recommendations Governing Anti-Rheumatic Drug Use in Rheumatic disease Patients Undergoing Elective THA or TKA:

- Non biologic-DMARDs should be continued in the during and throughout the perioperative period for patients TKA or THA.

- Biologic therapies should be withheld for surgery and prior to surgery - biologics should be held for one-dosing cycle or surgery should be planned for the end of the dosing cycle of that medication.
2. PRE-OP CLEARANCE (contd)

Biologic therapy that was withheld prior to surgery should be re-started with evidence of wound healing and no sign of infection or drainage (~14 days).

There is no need/utility for "stress dose steroids" for those on chronic steroids; the panel recommended the continued use of daily dose of glucocorticoids for patients throughout surgery.
3. Vaccine recommendations

1. Avoid live attenuated vaccines - nasal flu, MMR

2. SHINGRIX – just approved; inactivated VZV vaccine. Not tested yet in immunosuppressed patients.

3. For B cell depletion (eg Rituximab): vaccinate before starting Rituximab

4. Do administer flu vaccine (inactivated)

5. Do administer Pneumovax

Van Assen et al. Ann Rheu Dis 2011;70:414-422
Vaccine recommendations (contd.)

6. Tetanus recommendation same as general population
7. HPV vaccine should be considered
8. HBV vaccine - verify immunity
9. Travel recommendation same as general population (live attenuated caveat)

Van Assen et al. Ann Rheu Dis 2011;70:414-422
4. In patients on biologics, for which malignancies is there evidence for an increased risk?

- Multiple factors may contribute to risk of cancer in patients with psoriasis
  - Chronic inflammatory nature of disease
  - Increased prevalence of comorbidities associated with cancer risk (eg, smoking, obesity)

- Risk of malignancy increases with multiple immunosuppressive agents - RA registry data

Recent data suggest increase in risk for selected cancers in patients with psoriasis:\(^3\)

- lymphoma (35%) – baseline increased risk independent of therapy
- lung cancer (15%) – if h/o COPD
- Non-melanoma skin cancer (12-20%) vs matched populations without psoriasis

Increased risk of Melanoma: controversial, but some registries indicate possible increased risk

PRACTICE GAP
Skin cancer screening for patients on biologics

• Strong evidence for: increased risk of Non Melanoma Skin Cancer
• Modest evidence for: increased risk of Melanoma

• PRACTICE GAP: refer patients on biologics for annual skin checks.

Mercer LK, Green AC, Galloway JB, et al
The influence of anti-TNF therapy upon incidence of keratinocyte skin cancer in patients with rheumatoid arthritis: longitudinal results from the British Society for Rheumatology Biologics Register

Mercer LK, Askling J, Raaschou P, et al
Risk of invasive melanoma in patients with rheumatoid arthritis treated with biologics: results from a collaborative project of 11 European biologic registers
MOC QUESTION

What about prior h/o malignancy & biologic use?

The 2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis recommends that for patients with RA with a history of low grade melanoma or non-melanoma skin cancer, therapy with biologics is:

a) Completely contra-indicated
b) The first choice
c) The 2nd choice after DMARD’s
d) Acceptable first choice in the setting of moderately or highly active joint disease
e) Both C and D

Random side effects of biologic meds

The medications used to treat Psoriasis can precipitate...Psoriasis!

MOC question
The incidence of anti-TNF therapy induced paradoxical Psoriasis as a cutaneous adverse effect is:

a) Higher in RA
b) Higher in IBD patients
c) Not reported with Golimumab (Simponi)
d) Reported with all anti-TNF agents in all conditions treated with anti-TNF therapy.

Random side effects of biologics contd.

- Autoimmune diseases associated with anti-TNF treatment include a lupus-like syndrome, vasculitis
- Pulmonary fibrosis – anti TNF’s
- Congestive heart failure: anti TNF’s
- R.P.L.S – Reversible posterior leukoencephalopathy syndrome
  - p/w acute onset of confusion, headache, nausea, vomiting, and seizures.
  - Seen w Rituximab (anti B cell) and Ustekinumab (anti IL12/23).
Psoriasis patients need your help with their co-morbidities:

- More likely to smoke
- Have HTN
- Have diabetes, obesity, and hypercholesterolemia
- Even when corrected for above risk factors patients with severe psoriasis have an elevated incidence of myocardial infarction compared with age-matched patients without psoriasis
- Control of HTN, cholesterol, weight, and diabetes can assist in decreasing psoriasis burden and frequency of flares
- Moderate to severe psoriasis is associated with high risk of depression & suicide
ATOPIC DERMATITIS after 15 years, finally something new

- **DUPILUMAB**
  - Biologic approved for AD
  - Anti IL-4/IL-13
  - In phase 3 for moderate-severe asthma

- **CRISABOROLE**
  - Topical PDE-4 inhibitor (same drug class as Theophylline, Apremilast)
  - New non-steroidal ointment
  - Good itch control
  - In phase 2 trial for psoriasis
  - Compared to Tacrolimus & Pimecrolimus – no side effect of burning
Audience
Q&A