Objectives

• Explore new therapies pertaining to many aspects of dermatology

• Review updates on previous therapies

• Explore changes in treatment paradigms for common dermatologic conditions

• Review how to incorporate these changes into practice
Disclaimer

- I am a speaker and/or consultant for
  - Galderma
  - Abbvie
  - Janssen
  - Novartis
  - Pharmaderm
  - Leo
- Many of statements are my experiences etc. and very well be off label
- I am not going to review data verbatim
Outline

- Rosacea
- Acne (antibiotic use)
- Psoriasis
- Atopic Dermatitis
- Cutaneous Oncology (Melanoma, BCC, & AK)
- Alopecia
- Onychomycosis
- Urticaria
- Cosmetics
Rosacea

A woman drove me to drink and I didn’t even have the decency to thank her.

- WC Fields
Topical Ivermectin

- Topical ivermectin 1% (Soolantra) indicated for inflammatory lesions of rosacea
  - Anti parasitic, scabicide, bed bugs, and demodex
  - Exact mechanism unknown for rosacea
  - Contraindicated in turtles
  - Immediate and long term efficacy as 27% reported good improvement in 2 weeks and continued benefit in year long study
  - Excellent base which boosts its anti-inflammatory benefits
  - Significant difference in improvement over metronidazole 0.75% cream bid
  - Fewer side effects than azelaic acid cream
• Experience with Soolantra
  • Excellent patient satisfaction
  • Getting now close to a year of follow up with some and doing well
  • So far access has been good
• Off label uses
  • Acne especially for “sensitive skin”
  • Seborrhea
  • Delusions of parasitosis
  • Pruritus
Brimonidine

- Topical brimonidine 0.33% (Mirvaso) for persistent facial redness of rosacea
- First used for open angle glaucoma (Alphagan) and ocular hypertension
- Alpha 2 adrenergic agonist which leads to peripheral vasoconstriction
• Experience

• Very hit or miss whether patient will like it

• Works very well but many caveats
  • May work too well
  • Not great for telangiectatic or poikiloderma of Civatte
  • Does not always last 12 hours
  • Rebound can be great in some
  • Patient must be very good at applying
Rosacea summary

- I use extended release doxycycline 40mg (Oracea) or doxycycline 20 bid
- Various topical treatments
  - Dapsone (Aczone), Metronidazole gel, Azeleic acid (Finacea), Sulfur based therapies (cream, wash shampoo)
  - Treat underlying seborrheic dermatitis as well
- Also examine for atopic dermatitis in patient as this will aid in vehicle choices
- As DelRosso says vehicle matters
Watching Proactive commercials makes me wish I had acne to get rid of.
Adapalene 0.3% and BPO 2.5%

- Topical for acne featuring adapalene 0.3% and benzoyl peroxide 2.5% (Epiduo forte)
- Indicated for acne vulgaris (no niches etc)
- Perfect for combination minded providers and patients with even severe acne
- I do not use this very often at all since I limit my patient’s use of irritating BPO to mainly cleansers.
- Plenty of success stories with it
Antibiotic Use

- We are getting bombarded with non medical sources of antibiotics and the threat of resistance has intensified (agriculture, industry, etc) as well as medical sources

- For the vast majority of patients a sub-antimicrobial dose of oral antibiotics should be used

- If a patient is on antibiotic for more than 3-6 months new regimen should be sought (AAD recommendations)

- We have oral meds which work very well - Oracea (also its generic extended release doxycycline) & Peristat (doxy 20mg bid)
Antibiotic use

- Minocycline
  - dizziness, pigment alterations, auto-immune hepatitis, drug induced lupus

- Doxycycline
  - photodermatitis, nausea/vomiting

- Bactrim
  - life threatening drug eruptions, contraindicated with Methotrexate
Sources


- https://www.aad.org/dw/monthly/2015/august/overusing-acne-antibiotics#allpages

Adalimumab

- Recently received indication for Hidradenitis Suppurativa
- Different dosing plan than for psoriasis and psoriatic arthritis
  - 160mg at day 0, 80 at day 14 then 40 qoweek
    - Can also break up initial dose over 2 days
- About 50% response which is remarkable considering very few things work for this disease state
Psoriasis
Update to biologics

- Another year of extensive use another year of good safety data (PSOLAR)
  - no safety spikes with ustekinumab, etanercept, adalimumab or any biologics used for psoriasis
- Every year at AAD will release another year of data
- Still we are not using enough of them for our patients
  - combination of provider apathy, managed care, patient education, misleading information, and complexity of disease states
- Each year more data revealing co-morbidities with psoriasis and by not treating sufficiently we are doing a disservice
- New agents coming as well
Apremilast

- Oral apremilast (Otezla) indicated for plaque psoriasis and psoriatic arthritis (Sept. 2014 and March 2014) - 30mg bid

- Inhibitor of phosphodiesterase 4 and also of TNF-a in synovium (why both indications)

- $22,500 a year for treatment

- 33% PASI 75 at week 12 - sustained for a year

- Achieved ACR 20 38% at week 12 and continued to improve over one year of therapy
Apremilast

- Side effects - nausea, vomiting, weight loss, diarrhea, headaches, depressed mood with suicide risk
- I have about 15-20 patients on it
- Use the starter pack to get patients used to nausea which resolves
- All have been successful with treatment but by no means as effective as TNF or IL12/23
- Using it combination with TNF and IL12/23 and now have my first on methotrexate, ustekinumab, and apremilast
Secukinumab

- Secukinumab (Cosentyx) is indicated for plaque psoriasis
- Inhibitor of Interleukin-17A
- Dosing 300mg every week for 4 weeks then monthly pens are 150mg (latex tips)
- Cost $46,000 - which may be the most expensive
- 82% PASI 75, 59% PASI 90, sustained PASI 75 for one year as well
Secukinumab

- Side effects - check for TB, infections especially yeast as its theoretical effect on neutrophils, exacerbation of Crohn's disease, latex allergic patients beware of dispensing pen tip

- We have several on this in our practice with great results

- Since its new and doesn't seem to offer any major benefits it is being used as a 3rd or 4th line agent right now

- As safety data continues to be revealed will feel more confident about it
Atopic Dermatitis
Look Familiar?

Atopic Dermatitis
Investigational

• Topical
  • PDE4 inhibitors
  • JAK inhibitor - Janus from Roman mythology
    • “just another kinase” - family of tyrosinase inhibitors
  • Tofacitinib ointment
• Oral PDE4 inhibitor as well (Otezla)
Investigational

- Dupilumab which blocks IL4 and 13 (asthma as well)
- may be a game changer as it has effect clinically and at the molecular level
- studies still underway but very encouraging 85% of adults with at least 50% improvement in 12 weeks
- side effect profile encouraging with an actual decrease in serious skin infections
- Other targets include IgE, IL 17, 21, 22, 31 (overlap with psoriasis)
Cutaneous Oncology

Nice tan. Skin cancer looks good on you.
Melanoma

• New approval nivolumab (PD-1) which is part of the checkpoint inhibitors (pembrolizumab) AND ipilimumab as part of a combination therapy

• 50% patients have V600 BRAF mutation which would enable use of vemurafenib and dabrafenib which have increased overall survival

• BRAF + with a MEK inhibitor have increased overall survival and progression free survival

• Combination therapies have become more widely used and more and more patients are being put on these (oncologists)
Basal Cell Carcinoma

- Sonidegib (Odomzo) oral treatment for locally advanced BCC (Novartis)
- Same hedgehog pathway as vismodegib (Erivedge)
- Sonidegib study is BOLT
- Vismodegib study is STEVIE
- Have not used it yet but have used vismodegib several times with success
- Side effects - all of my patients on this has stopped the drug because of it
- dysgeusia, alopecia, muscle spasms, nausea, weight loss
Actinic Keratosis

- Nothing too new just new warning about use of Ingenol mebutate (Picato) and severe reactions when not used correctly

- I have used ingenue mebutate extensively since its release and have had excellent results when patients use it correctly

- Side effects do occur similar to using other topical field therapies for actinic keratoses

- Do not use topical corticosteroids to relieve the symptoms
Alopecia

- For female patterned do not neglect spironolactone
  - new data confirms safety especially at low doses (25-100mg a day)
  - routinely testing potassium etc not as much as a concern
  - may help with acne as well
- For male
  - Low level light therapy (600-800 nm) might be another therapy with some limited success
  - new devices are on the market but none of them stand out in efficacy
Onychomyosis

Happy 20th Anniversary to you and your toenail fungus.
Efinacazole

- Topical Efinacazole (Jublia), a triazole, indicated for onychomycosis
- Not very effective so limit use to mild cases in my practice
- 17.8 & 15.2% compared to 3.3 & 5.5% for placebo in its studies - still not great numbers but it's something
Tavaborole

- Topical tavaborole (Kerydin) indicated for onychomycosis of the toenails once daily for 48 weeks
- Unique mechanism of action Leucyl-tRNA synthetase inhibition
- Also utilizes boron (naturally occurring element)
  - helps with shape of molecule which can help with delivery
  - in an of itself an anti-inflammatory and has been used in household products before (Borax 20 mule)
- Have used this extensively with some remarkable results
- Studies almost mirror that of efinacazole but I have a feeling Kerydin’s new MOA has given it more in clinical results
Urticaria
Omalizumab

- Injectable omalizumab (Xolair) indicated for chronic urticaria not responsive to antihistamine therapy also indicated for allergic asthma

- Results were good
  - 15% to 9% & 22% to 5% complete response at week 12 with around 40% complete relief of symptoms
  - most common side effects were nasopharyngitis, headache, sinusitis, URI
  - must be monitored in office during injection for potential hypotension (anaphylaxis)

- Pregnancy B
Omalizumab

- Method of action
  - Humanized monoclonal antibody IgG that binds to IgE
  - Lowers free IgE (paradoxically it raises serum IgE so be aware if you check this)
  - By this method the receptors become down regulated
  - How this exerts its effect clinically on urticaria is unknown
- We have had decent success (6 patients)
  - Well tolerated
  - No issues getting covered somehow
  - What I have learned that true chronic urticaria is rare and many times underlying issue remains
Cosmetics

“'I've had so much plastic surgery when I die they will donate my body to Tupperware.'

Joan Rivers
1933 - 2014
BellaFill
Bovine collagen and PMMA

- First material to be indicated for correction of acne scars (severe, atrophic, distensible) on the face in patients over 21
- 2006 indicated for nasolabial fold correction for up to 5 years
- Bovine collagen and PMMA
  - Poly methyl methacrylate microspheres
  - Collagen provides immediate correction while the PMMA is there for further collagen production
- Must have skin test prior to using

The way the light catches your acne scars is enchanting.
Summary

• This is a modest presentation of some of the newer therapies dermatology providers can utilize

• Begin to change the way to approach rosacea and acne patients

• Lets all be mindful of antibiotic use

• Many of aspect of dermatology has received new items

• Luckily most of them have been effective

• Dermatology and Immunology seems to more and more woven as biologic therapies are extending to psoriasis, atopic, and oncology.