UPDATES IN PEDIATRIC DERMATOLOGY

Elizabeth (Lisa) Swanson, MD
Advanced Dermatology Colorado
Rocky Mountain Hospital for Children
lisaswansonmd@gmail.com
Disclosures

• Speaker
  • Almirall
  • Amgen
  • Lilly
  • Janssen
  • Ortho Dermatologics
  • Pfizer
  • Sanofi Regeneron

• Advisory Board Member
  • Janssen
  • Lilly
ATOPIC DERMATITIS
Impact of Atopic Dermatitis

- Eczema causes stress, sleeplessness, discomfort and worry for the entire family
- Treating one patient with eczema is an example of “trickle down” healthcare
- Patients with eczema have increased risk of:
  - ADHD
  - Anxiety and Depression
  - Suicidal Ideation
  - Parental depression
  - Osteoporosis and osteopenia (due to steroids, decreased exercise, and chronic inflammation)
Impact of Atopic Dermatitis

- Sleep disturbances are a really big deal
- Parents of kids with atopic dermatitis lose an average of 1-1.5 hours of sleep a night
- Even when they sleep, kids with atopic dermatitis don’t get good sleep
  - Don’t enter REM as much or as long
  - Growth hormone is secreted in REM (JAAD Feb 2018)
Atopic Dermatitis and Food Allergies
(My how the turntables have…turned)

- Growing evidence that food allergies might actually be caused by atopic dermatitis
  - Impaired barrier allows food proteins to abnormally enter the body and stimulate allergy
- Avoiding foods can be harmful
  - Proper nutrition is important
  - Avoidance now linked to increased risk for allergy and anaphylaxis
- Refer severe eczema patients to Allergist before 4-6 mos of age to talk about food introduction
Pathogenesis of Atopic Dermatitis

• Skin barrier is “broken”
• Overactive immune system process
  • Response to microbiome differences?
    • Studies show microbiome in lesional/nonlesional atopic dermatitis on the same patient is different from people without atopic dermatitis (JAMA Derm March 2018)
  • Result of a “bored” immune system?
Atopic Dermatitis: Standard Treatment

• Sensitive skin care
  • ALL free and clear detergent, no dryer sheets/fab soft
  • Dove sensitive skin or cetaphil soap
  • Vanicream/Vaseline/Aquaphor as moisturizers
  • Robathol bath oil
  • Bleach baths- ¼ cup bleach in full tub water
Dr Swanson’s Favorite Things

Sensitive Skin Care
- ALL Free and Clear Laundry Detergent
- No fabric softeners/dryer sheets
- Dove Sensitive Skin or Cetaphil soap
- Vanicream moisturizer- Walmart, Target, Costco, Sams (apply on TOP of meds)
- Vaseline or Aquaphor (apply on TOP of any medicines)
- Baking soda bath oil
- GermX Foaming Hand Sanitizer

Sunscreens
- Neutrogena Sensitive Skin/Pure Baby
- Banana Boat Kids Cream (not spray)
- COZZ Total Block/ COZZ Face (tinted)**
- Zinka “Colors” Sunscreen- various colors, fun for kids**
- Elta MD Spray On Zinc based sunscreen- in office or online
- Colorescience Pro Powder Sun Protection**
- Heliocare pills

Face Care Products
- Skinceuticals Ultimate UV Defense SPF 30**
- Skinceuticals Sheer Physical UV Defense SPF 50**
- Elta MD UV Clear- acne prone skin- tinted- in office or online
- Cerave PM for nighttime
- GlyActive Hydrating Cream**
- Cetaphil Foaming Face Wash
- Cerave Foaming Facial Cleanser
- GlyClear Effects Shine Minimizing Cleanser**
- Cetaphil non drying face cleansing wipes

Hats/Sun Protective Clothing
- www.coolibar.com
- www.wallyroo.com
- www.solumbra.com

Compression Stockings
- www.brightlifedirect.com: Allegro brand- 8-15 mm Hg

Keratosis Pilaris
- Dove Gentle Exfoliating Wash
- AmLactin 12% Cream
- Cerave SA

**- order online
Atopic Dermatitis- Standard Treatment

- Topical steroids - always do OINTMENTS in little kids
  - HC 2.5
  - Triam 0.1
  - Fluocinonide 0.05
  - Clobetasol 0.05
Atopic Dermatitis - Special Sites
Atopic Dermatitis and Infection

- St Louis study- 170 positive cultures (SPD July/Aug 2019)
  - 130/170- 77.8% were MSSA; 22.2% were MRSA
Atopic Dermatitis and Bleach Baths

- Sodium hypochlorite body wash (brand name CLN body wash)
- Atopic dermatitis patients with history of staph infection or colonization
- Used it twice a week
- Improved all outcome measures and reduced use of topical steroids
- Appeared to have limited activity directly on the staph so likely has an additional mechanism of action to help the atopic dermatitis
- SPD July/Aug 2019
Atopic Dermatitis: Steroid Burst

- Topical steroid burst for severe eczema/significant flares
  - Clobetasol bid for 5 days
  - Fluocinonide bid for 10 days
  - Triamcinolone bid until clear or followup appt
Aron Regimen

- Originated with dermatologist in UK
- Peter Lio, MD doing some studies on it
- Compounded medicine:
  - Betamethasone Valerate 0.1% cream- 30 gms
  - Mupirocin cream- 24 gms
  - Vanicream 400 gms
  - Mix to total 454 gms
- Use it 4-5 times daily to start and with improvement you slowly decrease the frequency of application
Calcineurin Inhibitors

- Elidel (pimecrolimus) 1% ointment
- Protopic (tacrolimus) 0.1% ointment
- Great for areas like face and folds
- Can be used as part of a maintenance routine
Calcineurin Inhibitors- Safety

• Pimecrolimus study from Pediatrics
  • 2418 patients age 3-12 mos old
  • Pts followed for 5-10 years
  • Found no evidence of lymphoma, malignancy or immune system impairment
  • Concluded it was safe even in the younger age group

• Pediatric Allergy and Immunology June 2015
  • Review of 21 studies of almost 6000 pediatric patients with atopic dermatitis on TCIs (elidel or tacrolimus)
  • Conclusion: safe and effective
Eucrisa (Crisaborole)

- Boron based topical ointment
- Inhibits phosphodiesterase-4 activity (PDE4) and decreases production of proinflammatory cytokines
- Efficacy
  - Stinging and burning
  - Can be nice for maintenance
    - 78% of patients went a whole year without needing topical steroids (Eichenfield, JAAD)
  - Might have a niche for hands
  - Contains propylene glycol (Contact Allergen of Year in 2018)
Eucrisa (Crisaborole)

- JAAD May 2019
- Retrospective review of pain with Eucrisa
- 41 patients
- 13/41 - 31.7% - had pain
- 5/10 who used it on the face had pain
Dupixent (Dupilumab)

- Blocks IL-4 and IL-13 (decreases the TH2 inflammatory response)
- About 70% of patients achieve EASI 75
- Very tolerable
- Good side effect profile
  - Injection site reactions
  - Conjunctivitis- increased risk in severe AD and if patient has h/o eye symptoms such as allergic conjunctivitis
- 300 mg subcutaneously every other week
- Real life results better than study data
- Decreases risk of skin infections (JAAD Jan 2018)
Dupixent (Dupilumab)

- Approved for 12 and up for atopic dermatitis on March 11, 2019!
- Phase 3 data - really tough atopic derm patients
- Severe > Moderate
- Could not use topical steroids for first 16 wks
- Same side effects as in adults
- Dupixent improved the signs, symptoms and quality of life in adolescents that didn’t achieve IGA 0/1 (SPD July 2019 Poster)
Dupixent in Kids under 12

- Studies in 6-11 yr olds have been completed and we expect approval in May 2020!
- My personal experience using it in kids down to 6 yrs old has been quite good
- I use 300 mg every 2 wks without loading dose
- Once clear, I often decrease to every 4 wks for maintenance
- I don’t often use the 200 mg dose
  - 200 mg = 1.14 ml
They Don’t Like the Shots, BUT

• They like being able to sleep
• They like not being itchy all the time
• They like not waking up with bloody sheets
• They like being able to wear the clothes they like
• They like being able to go to school
5 days after 1\textsuperscript{st} shot:
“Not sure if it is too soon to expect results and we don’t want to jinx ourselves, but it seems she has not been scratching at night! She has woken up the past two mornings with smooth hair vs a rats nest that takes forever to comb and signs of eczema bumps are reduced as well.

I will keep you posted...we are cautiously optimistic!”
“Just a little update...we started dupixent last Thursday when it arrived. We are AMAZED!!! He has felt great, just 1 wet wrap needed all week, just using vanicream. All blisters are gone and new skin is emerging. I just wanted to say thank you! Already an enormous difference.

He has been active this week, even wanting to go out to dinner, go out to play, and even on a shopping outing (which is rare for him). We have seen a huge increase in his happiness and hope. Thank you so much for helping us get here!”
Thanks for all of your help!

Lillian is wearing shorts!
Getting Dupixent Approved

- JAAD Feb 2020- “Off Label Use of Dupilumab for Pediatric Patients with Atopic Dermatitis: A Multicenter Retrospective Review”
  - Mean 9 wk delay to get it approved
  - Safe and effective in 111 patients age 6-11 yrs old
- "Most of the rules impacting access to medications are about cost, masquerading as safety."
  - Elaine Siegfried, Md
  - SPD Meeting July 2019
Getting Dupixent Approved

• Include pictures!
• Strongly worded letter! (happy to share-email me)
• Don’t take no for an answer
• Request a peer to peer
• Request an external review
• Have the parents call their insurance company 1-2 times a week to tell them how their child and family are suffering
Getting Dupixent Approved

- JAAD Sept 2018
  - Burden of ER visits for patients with atopic dermatitis
  - Association of atopic dermatitis with depression, anxiety, and suicidal ideation in kids and adults
Getting Dupixent Approved

- JAMA Derm Feb 2019
  - Atopic Dermatitis and Suicide - metaanalysis of 15 studies
    - Patients with atopic derm were 44% more likely to have suicidal ideation and 36% more likely to attempt it
Getting Dupixent Approved

• JAAD Feb 2019
  • Both children and adults with atopic dermatitis have increased risk of other various autoimmune diseases
  • Systematic review and meta analysis showing the relationship between atopic dermatitis and depression/suicidal ideation
    • Atopic dermatitis association with increased depression, antidepressant use, suicidal ideation and parental depression
  • LACK OF FDA APPROVAL SHOULD NOT LIMIT ACCESS TO APPROPRIATE TREATMENT by Elaine Siegfried, et al
Getting Dupixent Approved

• SPD Journal Jan/Feb 2019
  • Impact of atopic dermatitis on families
    • Decreased quality of life of families in terms of sleep, finances and relationships
  • ***Case Series by Peter Lio looking at 6 patients age 7-15 with atopic dermatitis on Dupixent***
    • All had improvement in IGA and no side effects reported
  • ***Use of Dupixent in Pediatric AD: Access, dosing and implications by Elaine Siegfried***
Getting Dupixent Approved

• JAMA Derm May 2019
  • Sleep disturbances and exhaustion in mothers of children with atopic dermatitis: profound effect for the first 11 years of the child’s life
“I tear up a little. And then I tear up a lot.”
- Phil Dunphy, Modern Family
(and me, when I think about my pediatric patients on Dupixent)
New Regional Dermatoses with Dupixent

• JAMA Derm July 2019
• Looked at New Regional Dermatoses (NRDs) in patients on dupixent for atopic dermatitis
• 17/124 (13.7%) of patients developed new regional dermatoses
• 14/17 were on the face
• 12/17 were eczematous, 4/17 were erythema
• Is this allergic contact? Rosacea? Demodex? Seb derm?
Dupixent Facial Redness

- JAAD Jan 2020
- Retrospective review at UConn
- Occurred in about 10% of patients
- Sometimes triggered by alcohol
- All patients chose to continue the Dupixent
- Said it didn’t respond to topical steroids or TCIs
- Treated patients with topical ketoconazole; patch testing if no response
- 4 Possible Hypotheses:
  - Hypersensitivity to Dupixent
  - Site specific treatment failure
  - Seb derm like rxn to malassezia species
  - Flaring of allergic contact dermatitis
Treatments on the Horizon

• Tapinarof 1% cream- activates the aryl hydrocarbon receptor
  • JAAD Jan 2019- EASI 75 in 50% of patients
• Lebrikizumab- IL 13- Q 4 wks
• Tralokinumab- IL 13- Q 2 wks
• Nemolizumab- IL 31
• Fezakinumab- IL 22- IV infusion
• JAK Inhibitors
  • Abrocitinib JAK1- Pfizer, 2 phase 3 trials in 12 and up complete
  • Baricitinib JAK 1/2
  • Upadacitinib JAK 1- breakthrough status, Abbvie
  • Hopefully topical JAKs
Nickel Contact Dermatitis

- [www.nickelsolution.com](http://www.nickelsolution.com)
- Comes with nickel alert to detect it and a special clear lacquer to protect your skin from something with nickel in it
Wet Wipe Contact Dermatitis

• Due to preservative MCI/MI (Kathon CG)
• Also think about it in cases of persistent facial dermatitis
• There are now 3 brands of wipes that don’t contain the allergen
  • Honest Brand
  • Earth’s Best Hypoallergenic
  • Water wipes
Slimer's Dermatitis
Slimer’s Dermatitis

• Making slime has become quite the trend
• The ingredients in slime are all irritating- borax, glue, soap
• Produces a rash on the palms that looks like dyshidrotic eczema with red scaly patches and sometimes teeny vesicles
• Typically extends into webspaces from squeezing the slime
• “A Slime of the Times” Peds Derm Jan/Feb 2019
Isobornyl Acrylate

- Contact Allergen of the Year 2020
- Found in glucose monitors that adhere to the skin
- Dexcom or Eversense are safe glucose monitors
PERIORIFICIAL (PERIORAL) DERMATITIS
Periorificial Dermatitis (Perioral Dermatitis)

- Very commonly misdiagnosed in kids
- Can look like eczema, can look like acne, can look like seb derm
- Occurs in perioral, periocular distribution
- Also quite common in nasal alar creases
- Topical steroids will initially make it look like it is getting better, but they actually make it worse in the long run
- Ask about steroid inhalers, nasal sprays, topical steroids, etc
- Most cases are idiopathic
Perioral Dermatitis

- Sometimes hard to differentiate from Lip Licker’s Dermatitis or drool induced irritant dermatitis
- Perioral dermatitis will SPARE the vermilion border
- Perioral dermatitis often has small pink acneiform papules present in addition to the dermatitis changes
Periorificial Dermatitis

• Treatment is different in kids than adults
  • Elidel cream or Tacrolimus ointment bid
  • Amoxicillin (30 mg/kg/day divided bid for a month)
  • Azithromycin if PCN allergic
Perioral Dermatitis in Kids- Additional Treatment Options

- Make sure there are no steroids on the face
- Clindamycin lotion/wipes
- Metronidazole cream
- Sodium sulfacetamide products
- Aczone
- Gentamicin 0.3% ophthalmic ointment

- Oral Ivermectin/Soolantra (JAAD March 2017)
  - Small study- 8 pts with rosacea, 7 with POD received either single dose ivermectin 200-250 micrograms/kg or soolantra daily for 3 mos
  - 8/9 cleared with oral iver and 6/6 cleared with topical soolantra
- Longer antibiotics
- Azithromycin
  - I have classically prescribed it MWF for a month
  - Some providers are using it for 5-7 days, then 2 wks off, then repeat
Perioral Dermatitis- Gluteal Variant

- Monomorphic pink papules and pustules on buttocks
- Ddx includes keratosis pilaris, MRSA (I always swab one of the pustules)
- Treatment options
  - Topical clindamycin- works about 90% of the time
  - Oral amoxicillin
  - Azithro if PCN allergic
Perioral Derm- Gluteal Variant
PSORIASIS
Epidemiology of Pediatric Psoriasis

• 1% is likely an underestimation - not all patients see a doctor and many are misdiagnosed
• 1/3 of all patients with psoriasis have skin disease that begins in childhood
• 1/3 of kids with psoriasis have family history in a first degree relative
• Patients with a family history are more likely to have early onset disease
The Incidence is Increasing

• The incidence of children with psoriasis has been increasing for years
• Some of this might be because of better diagnosis and awareness of the condition
• A study published in the 2000s showed that rates of pediatric psoriasis more than doubled between 1970-74 and 1995-99
• An explanation for this increase is not known
• One hypothesis is an increase in “trigger factors” like stress, infection, trauma and obesity
• Some blame our pro-inflammatory diet
• Some just think this is due to increased awareness
Epidemiology

- Median age of onset is between 7-10 yrs old
- Slight female predominance in kids (opposite in adults)
- Tends to start earlier in girls
- Girls more likely to have scalp involvement
- Boys more likely to have nail involvement
- According to studies, most have mild-moderate disease (defined as BSA less than 10%)
Pathogenesis

• Typically chronic inflammatory condition
• Environmental factors likely play a role
  • Physical trauma (koebnerization)
  • Stress
  • Certain medications- withdrawal of steroids, lithium, antimalarials, beta blockers
  • Diet
  • Infections- especially group A strep and especially in kids
    • Can be perianal strep or strep pharyngitis
    • Viruses can also serve as a trigger
• Genetics also contributes
  • 1/3 of kids with psoriasis have family history in a primary family member
  • Often patients with family history have early onset of disease
Pediatric Psoriasis

• Plaque psoriasis- 73.7% of kids with psoriasis
  • Most common variant
  • Doesn’t always look like it does in adults. Patches and plaques are smaller, thinner and less scaly.

• Guttate psoriasis- more common in kids than adults
  • Typically triggered by strep, sometimes viruses
  • Presence or absence of strep might mean something prognostically
    • Strep positive- may spontaneously clear and not progress
    • Strep negative- might persist and become plaque psoriasis. When it starts as guttate psoriasis, it tends to ultimately be more severe plaque psoriasis

• Inverse Psoriasis- commonly mistaken for yeast

• Eczema/Psoriasis Overlap

• TNF alpha inhibitor associated Psoriasis

• Infant Psoriasis- typically in diaper area
  • Little to no data on the longterm course of babies with diaper psoriasis
Psoriasis/Eczema Overlap (aka Psoriasiform Dermatitis)

• Very common in kids
• Might look like eczema in the antecub fossa but looks like psoriasis on the scalp
• Check the fingernails, check the tongue, check the belly button
• Look for Koebner phenomenon
• Sometimes family history of psoriasis helps
• Lack of response to mild topical steroids is suggestive of psoriasis
• Treat and observe the patient over time
Diagnosis Issues

- There are misconceptions, particularly amongst primary care, that psoriasis is rare in kids
- Plus the skin lesions in kids aren’t often the same thick, red, scaly plaques that people are used to seeing in adults
- This leads to misdiagnoses of:
  - Atopic dermatitis
  - Nummular eczema
  - Seborrheic dermatitis
  - Pityriasis Rosea
  - Fungus/Yeast
Burden of Illness

• The "heartbreak of psoriasis" affects numerous aspects of a person’s life, especially when it affects a child
  • Day to day routine of topical management
  • Cost of doctor’s visits and treatments
  • Dealing with social stigma and lack of confidence/self esteem
  • Increased risk of depression and anxiety
  • Obesity
  • Numerous medical comorbidities

• Incidence of comorbidities in patients younger than 20 with psoriasis (14.4%) is twice that of kids without psoriasis (7.2%)
Obesity

• Obesity is the number one association in the pediatric psoriasis population
• Most often, the obesity happens first and THEN the onset of skin disease
• Central obesity specifically is statistically associated with mod-severe psoriasis
• The association is proportional to the overweightness
  • Overweight patients tend to have mild-moderate psoriasis
  • Obese patients tend to have moderate-severe psoriasis
Cardiometabolic Comorbidities

• Kids with psoriasis have 2-4 times increased risk of:
  • Hypertension
  • Hyperlipidemia
  • Diabetes
  • Crohn’s
• Also have higher prevalence of metabolic syndrome (30%) compared to kids without psoriasis (7.4%)
• We attribute this increased risk to the systemic inflammation present in patients with psoriasis
• Psoriasis is more than just “skin deep”
Psoriatic Arthritis

• In adults, incidence of PsA in patients with psoriasis is about 6-41%
• In kids, it appears to be about 5-10%
• When PsA occurs in kids with psoriasis, the average age of onset is 9-12 yrs old
• Typically the oligoarticular type of PsA
• Usually mild
• Often onset of skin disease and arthritis occurs simultaneously in kids (different than in adults)
Psychiatric Comorbidities

• Kids/teens with psoriasis show increased risks of:
  • Depression
  • Anxiety
  • Bipolar disorder
  • Substance abuse- smoking, drugs, alcohol

• In addition, kids with psoriasis have issues with:
  • Self esteem and confidence
  • Decreased activity level/reluctance to participate in sports
  • Being victimized by bullying
Psoriasis is a Systemic Disease

• #1 association in children is obesity
  • Talk to them about weight
• Screen for diabetes every 3 yrs at age 10
• Screen for NASH every 3 yrs at age 10
• Screen for HTN annually starting at age 3
• Screen lipids at age 10 and again at 18
• Ask about arthritis
• Ask about depression and anxiety
• Ask about smoking, stress, substance abuse in older kids
Quality of Life

• Quality of life studies in kids with various skin diseases have been done
  • Patients with psoriasis reported high amount of impairment in QoL
  • Stress levels as high as kids with eczema
  • Stress levels higher than kids with hives or acne
• Impact on quality of life of pediatric psoriasis is similar to the impact of other chronic pediatric diseases like arthritis, asthma, and diabetes
Quality of Life - Impact of Treatment Regimens

• Most kids with psoriasis are being managed topically
• The routine of applying all of these things can make day to day life a real struggle
  • Very time consuming
• It impacts the ability to go to camp, go to sleepovers, go on vacation
• The topicals frequently are not very socially acceptable
• Ointments are goopy, preparations for scalp psoriasis are often not ideal, some topicals can sting and burn
Psoriasis dramatically affects the social lives of kids with the disease. Several aspects of the disease contribute to this:

- Psoriasis frequently affects the face in kids
- It is often itchy
- The scaling can be apparent even if the rash is concealed

School can be really hard:

- Teasing
- Exclusion
- Bullying
- Intimidation

15-30% of kids with psoriasis will limit their extracurricular activities—sports, theater, etc.

Impact of quality of life is proportional to severity of the disease:

- But severity of disease needs to take into account more factors than just BSA: location of the rash and different people experience their disease differently
- A good way to assess the impact is to ask kids to rate on a scale of 1 to 10 how satisfied they are with the appearance of their skin.
Impact of Pediatric Psoriasis on Parents

• JAAD Feb 2017
• 65% said their own emotional wellbeing was affected
• 50% were sad or frustrated
• 20% were depressed or anxious
• They felt burdened by all the topical management
• Had to make activity accommodations 2/3 of the time because of child’s skin disease
The best news is...**Addison is 95% clear!** We are so thrilled and I can’t thank you enough for immensely improving our quality of life. There is no better joy for me, as a mom, to see her jumping up and down saying, “My spots are gone! I’m normal!!” My heart is happy. 😊
Burden of Disease
Relationship to the Treatment Paradigm

• The treatment of pediatric psoriasis is probably 10 years behind the treatment of adults, but we’re starting to catch up!
• Significant unchecked inflammation that starts in childhood can contribute to major issues in adults
• The understanding that psoriasis is a systemic illness consisting of systemic inflammation that causes other systemic issues is making it more appealing to treat systemically
• The hope is that treating the entire disease will have an impact on comorbidities
• The “psoriatic march” might be something that we can thwart
Biologics in Kids

- Enbrel (etanercept) - APPROVED FOR KIDS >4 YRS OLD in 2016!!
  - Approved in US for JIA in kids >2 yrs old since 1999
  - 1 study in US in children with psoriasis- 2008- 211 patients age 4-17
    - 0.8 mg/kg/wk
    - 57% achieved PASI 75
    - This study has been continued to date and has great long term safety data (JAAD Feb 2016)
Biologics in Kids

- **Humira (adalimumab)**-
  - Approved in US for kids with JIA (>2 yrs old) and Crohn’s (>6 yrs old)
- **Stelara (ustekinumab)**- NOW APPROVED IN KIDS >12 YRS OLD!!!
  - Several case reports of effectiveness and safety
  - 1 clinical trial- patients age 12-18, 110 patients
    - 80% reached PASI 75 at 12 wks (JAAD Oct 2015)
  - I have several pediatric patients on it
Psoriasis is a Systemic Disease

• Stelara is associated with decreased systemic and vascular inflammation in patients with mod-severe psoriasis
  • Looked at levels of inflammation using PET CT in the liver, spleen, aorta, ascending aorta, descending aorta, renal aorta
  • Only 10 patients
  • They measured the inflammation at baseline and then when PASI 75 was achieved
  • JAAD May 2019

• Humira x 10 years reduced all cause mortality
  • 6014 psoriasis patients on humira in US, Canada, Europe
  • They had a 58% lower morality rate than expected over 10 years (144 deaths would have been predicted and only 60 deaths happened)
  • “You can save lives by treating psoriasis”
Biologics in Kids

- Otezla - phosphodiesterase 4 inhibitor
  - Phase 2 open label study in kids 6 and up published in JAAD Feb 2020
  - Overall PASI 68 for adolescents and PASI 79 for kids
  - Good safety and tolerability; anticipate phase 3 trials
- Stelara - anti IL 12 and 23 - pursuing indication down to age 6
- Tremfya - anti IL 23 - pursuing indication down to age 6
- Taltz - anti IL 17 - pursuing indication down to age 6
  - Should happen this year
  - Difficult in younger kids because of the IBD questions
  - Should we be ordering fecal calprotectin to assess risk of IBD?
ACNE
Seysara (Sarecycline)

- New oral antibiotic to treat acne
- First new oral antibiotic for acne in over 40 years
- Approved for kids 9 and up
- Once daily weight based dosing
- Seems to avoid side effects of doxycycline and minocycline
  - No esophageal discomfort, no sun sensitivity
  - No vertigo, dizziness, lupus like syndrome, blue skin
- Has been studied and found to have minimal effect on gut flora
Other Hormone Tidbits

• Progesterone only methods of birth control tend to increase acne
  • Implanon
  • Mirena IUD
  • Progesterone mini pills

• Spironolactone can be helpful in the teenage population, especially if the patient:
  • Is on a progesterone only method of birth control
  • Has features of or a diagnosis of PCOS
  • Mayo study- 80 teenage girls- Spiro worked well, but most had to use 100 mg daily
Changes in Isotretinoin Monitoring

• A number of studies in 2017 showed that we have been “over monitoring” with labs for isotretinoin

• New recommendations:
  • check *lipids and LFTs at baseline and then at 2 mos* into therapy
  • if normal, that is all that is necessary.

• No need to check CBC
Accutane and Depression

• Most recent study from Northwestern presented at AAD 2019
• Examined medical records of 38,000 patients with acne between 2001 and 2017
• 41/1087 patients on Accutane had depression = 3.77%
• 1775/36929 patients not on Accutane had depression = 4.81%
Accutane and Depression

• From 2015-2019, I have had 4 male patients and 2 female patients become severely depressed on accutane. None of them had h/o mood issues prior.
• Appears to happen acutely
  • All 6 admitted that they felt the symptoms early on, but had lied to me about it because they saw the improvement the accutane was having with their skin
  • 2 of them were cutting themselves unbeknownst to their friends and family
• All 6 of them expressed suicidal ideation
• 1 of them was admitted to the hospital on a psych hold
• 1 of them attempted to commit suicide by jumping off a ladder head first
• All 6 of them stopped the accutane and their mood returned to normal
New Treatments on the Horizon

• Amzeeq- topical minocycline foam
  • FDA approved, prescribable Jan 2020

• Trifarotene- new topical retinoid
  • FDA approved, prescribable Jan 2020

• Clascoterone- new topical anti-androgen
  • Anticipating FDA approval (PDUFA Date August 2020)
ALOPECIA AREATA
Did Gluten do this?

• The Dermatologist May 2019
• 0.31% of patients with alopecia areata had celiac disease
• 1% of the general population has celiac disease
• Screening is not necessary and gluten free diet is not needed
JAK Inhibitors

• 2014-2 Yale Researchers published a case report in JID
  • Male patient with h/o arthritis and alopecia totalis
  • Started on Tofacitinib (Xeljanz- JAK1/3 inhibitor) for arthritis
  • All his hair regrew
JAK Inhibitors Appear Promising

- JAMA Derm October 2015
  - Case report of Tofacitinib working for vitiligo
- JAAD Feb 2016
  - Case report of ruxolitinib working for pt with alopecia areata and vitiligo
- JAMA Derm April 2016
  - Topical ruxolitinib 0.6% cream bid for AA case report- hair seen at 12 wks
  - Oral tofacitinib for nail dystrophy associated with alopecia areata (JAMA
    - 3 patients. Nails improved in all. Hair regrew in 2/3
- Derm News July 2016
  - 12 patients. 5/12 had alopecia totalis/universalis
  - 11/12 had regrowth, 7/12 had >50% regrowth
  - Recurrence is an issue
Tofacitinib for alopecia areata in 90 adult patients

- Severe alopecia areata, alo tot, alo univ
- Clinical response in 77%
- 58% had intermediate-complete response over 4-18 mos
- Consider adding in pulse pred for nonresponders
- After 10 yrs of complete scalp hair loss, pts are less likely to respond
- No serious adverse events over 12 mos
- When to stop treatment still unclear; probably indefinite
JAK Inhibitors- JAAD Jan 2017

• Tofacitinib for alopecia areata in 13 adolescents
  • Ages 12-17
  • Used 5 mg bid dose
  • Hair regrowth in 70% of patients
  • Safety questions- baricitinib being studied for treatment of interferon-mediated autoinflammatory syndromes in kids as young as 18 mos and URI appears to be the most common side effect in those kids
Alopecia Areata

- Case series of 3 patients under age 5 with alopecia totalis and universalis treated with Xeljanz 2.5 mg daily
- 1 patient increased to 5 mg daily
- Well tolerated and worked well
- JAAD April 2019
JAK Inhibitors

- Xeljanz (Tofacitinib) 5 mg bid
- Appears well tolerated- side effects include headache, GI upset
- Baseline labs
  - CBC with diff, CMP, lipid panel
  - TB test, Hep B, Hep C, HIV
- Repeat CBC with diff, CMP and lipid panel every month for 3 mos, then every 3 mos
- I have several patients currently on it for AA and for vitiligo, doing well
- Topical versions probably still 2-3 yrs away
A MOMENT OF REFLECTION
Worst experience ever...our son had three small wart we went in for a simple removal. The 1st attempt was a complete disaster...Dr. Swanson attempted to burn the warts with liquid nitrogen and not one of the three warts were done successfully. After speaking with her office, I was told to return on a Saturday walk-in clinic and the procedure would be redone at no cost because things were unsuccessful (I saved the voicemail just in case and I'm sure glad I did). My son and I returned to their next Saturday walk-in clinic in Centennial and have never been treated so rudely in my life (the girl at the front desk with a nose ring and tattoos should not be in the health care profession!!!). After waiting for nearly an hour, they told me that I would need to reschedule the appoint and that I would have to get another referral from our primary care doctor. I played the voice message back to them and they agreed to have us come back and the procedure redone. I thought that everything was taken care of and received a second bill in the mail for the "warranty" procedure and disputed this with their billing department. It has taken me two weeks to finally get ahold of Elizabeth Swanson and she told me that she could have billed me more than she did and that this was the lowest code cost for an office visit that I could have been given...unbelievable!!! I have since paid the second bill for the same procedure and will never step foot into their office again...I would avoid this office like the plague!!!
The End!
Any questions: lisaswansonmd@gmail.com