Peds Derm Updates

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Disclosures

- Speaker
 - Sanofi Regeneron
 - Amgen
 - Almirall
 - Pfizer
- Advisory Board
 - Janssen



Dwight Schrute, *The Office*



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:
 - o 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
 - o Don't enter REM as much or as long
 - o Growth hormone is secreted in REM (JAAD Feb 2018)

Atopic Dermatitis and Food Allergies

- 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
 - Reaction to microbiome on skin?
 - 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
- o Bleach baths- 1/4 cup bleach in full tub water



Advanced Dermatology

Www.uchoderns.com

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Mohs Micrographic Surgery James T. Chapman, M.D. Darlene S. Johnson, M.D.

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Pediatric Dermatology Elizabeth Swanson, M.D.



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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 '	FO
of meds)	
Vaseline or Aquaphor (apply ON TOP of any medicines)	
Robathol bath oil	
GermX Foaming Hand Sanitizer	
Sunscreens	
Neutrogena Sensitive Skin/Pure Baby	
Banana Boat Kids Cream (not spray)	
COTZ Total Block/ COTZ Face (tinted) **	
Zinka "Colors" Sunscreen- various colors, fun for kids **	
Elta MD Spray On Zinc based sonscreen- in office or online	
Colore Science 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	
Olay Active Hydrating Cream**	
Cetaphil Foaming Face Wash	
Cerave Foaming Facial Cleanser	
Olay Fresh Effects Shine Minimizing Cleanser**	
Cetaphil non drying face cleansing wipes	
- and the state of	

Hats/Sun Protective Clothing

- www.coolibar.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
 - o HC 2.5
 - o Triam 0.1
 - Fluocinonide 0.05
 - o Clobetasol 0.05

Atopic Dermatitis: Steroid Burst

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

Aron Regimen

- Originated with dermatologist in UK
- Peter Lio doing some studies on it
- Compounded medicine:
 - O Betamethasone Valerate 0.1% cream- 30 gms
 - o 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

- Black Box Warning
- Pimecrolimus study from Pediatrics
 - o 2418 patients age 3-12 mos old
 - o 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
 - o 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
- 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 and 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)

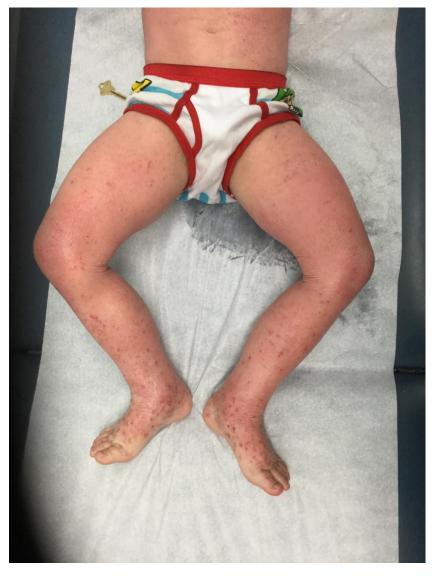
- Approved for 12 and up for atopic dermatitis on March 11, 2019!
- Phase 3 data- really tough atopic derm patients
- Severe > Moderate
- Could not use topical steroids
- Same side effects as in adults
- Dupixent improved the signs, symptoms and quality of life in adolescents that didn't achieve IGA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

Dupixent in Kids under 12

- Studies in 6-11 yr olds have been completed
- 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
- It is a fight, but a fight that is worthwhile









"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!"

- "Most of the rules impacting access to medications are about cost, masquerading as safety."
 - ELAINE SIEGFRIED, MD
 - SPD MEETING JULY 2019

JAAD Sept 2018

- o Burden of ER visits for patients with atopic dermatitis
- Association of atopic dermatitis with depression, anxiety, and suicidal ideation in kids and adults

- JAMA Derm Feb 2019
 - O 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

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 derm is 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

- 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***

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

- Include pictures!
- 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

New Regional Dermatoses with Dupixent

- JAMA Derm July 2019
- Looked at New Regional Dermatoses (NRDs) in patients on dupixent for atopic dermatitis
- 17/124 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?

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
 - o Baricitinib JAK 1/2
 - Upadacitinib JAK 1- breakthrough status, Abbvie
 - Hopefully topical JAKs

Atopic Dermatitis: Natural Therapy

Coconut oil

 Has good antibacterial properties, but might not help the eczema itself

Sunflower seed oil

- Does appear to help with eczema- difficult to find a good preparation
- Aroma Workshop in Chicago
- o <u>hello@aromaworkshop.com</u>
- Patients can call 773-871-1985
- o 8 oz spray bottle for \$22 plus \$5.50 shipping

Atopic Dermatitis: Natural Therapy

CBD Oil

- Probably does have some efficacy for itch and maybe for inflammation
- Good formulation available thru Aroma Workshop in Chicago, formulated with help of Peter Lio, MD

Mahonia Aquifolium

- JCAD Dec 2018; looked at 8 small studies (7 for psoriasis, 1 for atopic dermatitis)
- Statistically significant improvement with minimal side effects
- On amazon, but super fragrant

Atopic Dermatitis: Prevention

Probiotics

- o Taken by a child with eczema appear to have no impact
- O But if a pregnant woman takes probiotics 2 weeks prior to having a baby and for 3 mos after having the baby, it reduces the risk of eczema in that baby by 20-30%

Atopic Dermatitis: Prevention

Transepidermal Water Loss (TEWL)

- TEWL in first weeks of life associated with increased risk of eczema
- Families with h/o eczema should be managing their new baby with the same sensitive skin care strategies to try to prevent the eczema
- 50% reduction in eczema by simply using sensitive skin care in first weeks of life



Contact Dermatitis in Kids

- Either on the rise or being recognized more commonly
- 1 exposure to the triggering agent causes a rash for 3 weeks (patients cannot intermittently use their allergen)
- Patch testing can be considered, but most of the time, we try to identify the culprit based on the pattern of the rash

Wet Wipe Contact Dermatitis



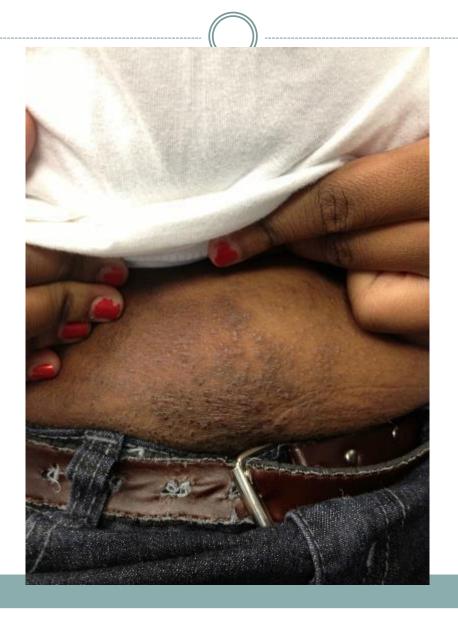
Wet Wipe Contact Dermatitis

- 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

A Quick Comment about Parabens

- Parabens were the "Non Allergen" of the Year in 2018
- Parabenphobia was unnecessary in the first place
- Based on estrogen effects seen in animals given
 25000 times the dose of parabens used as a preservative in topicals
- Most manufacturers replaced it with MCI/MI

Nickel Contact Dermatitis



Nickel Contact Dermatitis

- Most common allergen
- Present in almost anything metal
 - Jewelry
 - Snaps on jeans
 - Belt buckles
- Strict avoidance is the only option
 - www.nickelsolution.com- makes a clear lacquer that is better than nail polish and can be effective
- www.nonickel.com
- Dimethylglyoxime test
- Can trigger an id reaction

Id Reaction





Id Reaction

- An Id reaction is a sympathy rash to the primary problem
- Most commonly triggered by allergic contact dermatitis, but can be triggered by molluscum or tinea

Gianotti Crosti

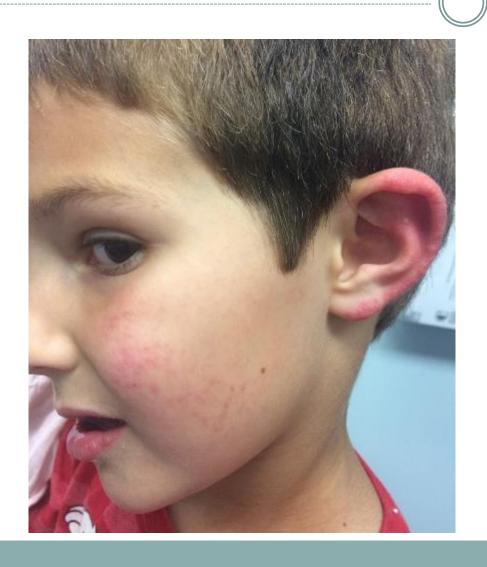




Gianotti Crosti

- Also causes monomorphic skin colored to pink papules all over arms, legs and cheeks
- Check the ears
- Typically caused by EBV but several viruses or vaccinations can do it
- Can take up to 8 wks to resolve
- Topical steroids help if itchy

Gianotti Crosti- ear involvement





Toilet Seat Dermatitis



Toilet Seat Dermatitis

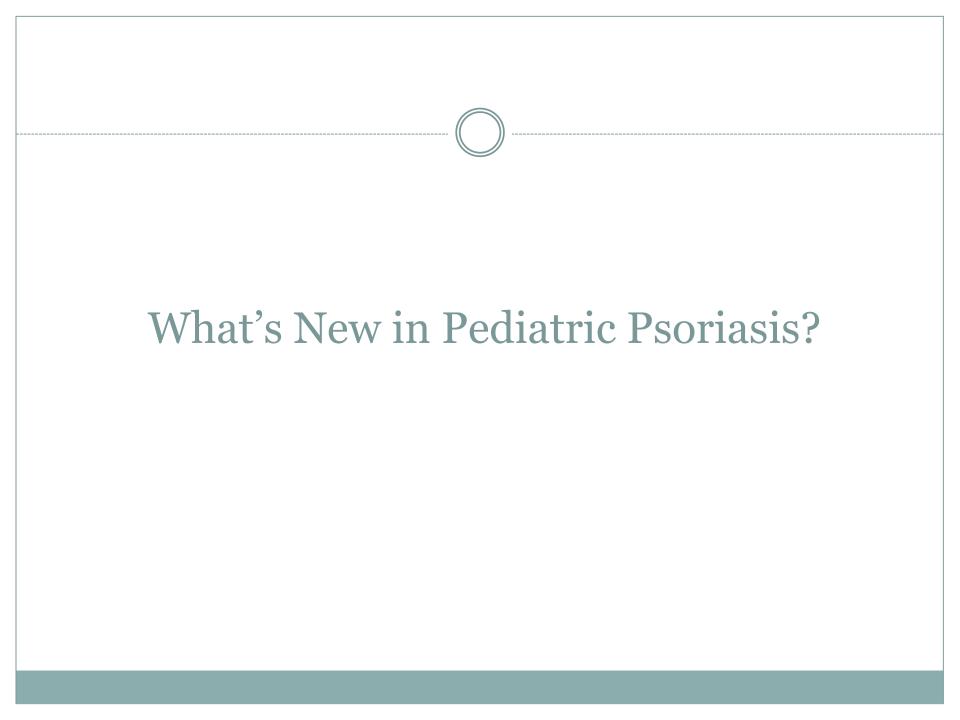
- Either a reaction to a cleanser being used on the seat or to the components of the seat itself
- Characteristic distribution on the lateral buttocks and post thighs
- "Soft and Comfy" toilet seat covers- Amazon \$5.99
- Treat with hydrocortisone or desonide

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



Pediatric Psoriasis

- It's out there
- Plaque psoriasis
- Guttate psoriasis- often triggered by strep
- Inverse psoriasis- nearly always mistaken for yeast/tinea cruris in kids/teens
- Check the nails, check the tongue

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





Pediatric Psoriasis- Topical Treatment

- Clobetasol cream/ointment- body
- Clobetasol foam (Olux/Olux E Foam)- scalp
- Taclonex suspension or Enstilar foam
- Elidel or Protopic- face and folds
- I personally don't think calcipotriene alone or tazorac is that helpful
- Light therapy

Psoriasis

- Systemic treatment of pediatric psoriasis is probably 10 years behind adult treatment, but we're trying to catch up!
- Systemic effects of psoriasis are making it more advantageous to consider systemic therapy, even in children
- Old school treatments like methotrexate and soriatane carry significant risks
 - JAMA Derm Sept 2017- compared MTX or TNF (mostly Enbrel) for peds psoriasis
 - Far fewer adverse events in the TNF inhibitor group

Biologics in Kids

- Enbrel (etanercept)- NOW APPROVED FOR KIDS >4 YRS OLD!!
 - Approved in Europe for psoriasis in kids >6 yrs old
 - Approved in US for JIA in kids >2 yrs old
 - o 1 study in US in children- 2008- 211 patients age 4-17
 - × o.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

Stelara (Ustekinumab)

- Approved in kids 12 and up!!
- Going for approval down to 6- study has completed and FDA approval is pending
- Several case reports of effectiveness and safety
- o 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- it's my treatment of choice for pediatric psoriasis

Psoriasis is a Systemic Disease Guidelines in Kids (JAMA Derm July 2017)

- #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

Psoriasis is a Systemic Disease

- For every year that you have psoriasis, your risk of cardiovascular disease goes up by 1%
- That's a big deal if you get psoriasis when you are a kid
- We hope systemic treatment reduces the risk
 - Aortic root inflammation is key marker of cardiovascular disease (measured on PET CT)
 - Ustekinumab decreased aortic root inflammation by 19% in 12 weeks





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



Diaper Rashes



Diaper Rashes

- Most common causes are irritant contact derm and yeast
- Symmetrical, moist appearing pinkness with satellite pustules suggests yeast
- Dermatitic like symmetrical rash that involves contact with soiled areas, frictional creases suggests irritant contact
- Regardless, I suggest zinc oxide barrier cream (Desitin) with each diaper change
- Pick one (go with your gut) and treat
 - O Hydrocortisone 2.5% ointment bid
 - Econazole 1% cream bid

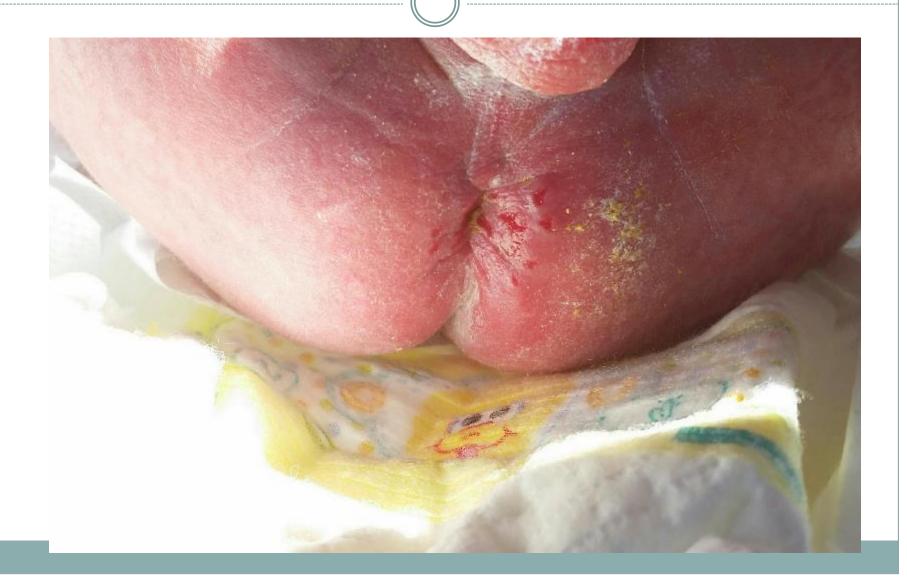
Diaper Rashes- Irritant Contact!



Diaper Rashes- Yeast!



Diaper Rashes- Yeast again!



Hand Foot and Mouth Disease

- Causes somewhat annular red-purple-gray patches on hands, feet, and around the mouth sometimes with intraoral lesions
- Previously coxsackie A16 and enterovirus 71 were the most common causes
- Coxsackie A6 has emerged over the past 4-5 yrs as the primary causative agent
- Produces more severe rash with prominent diaper area involvement
- Adults have been getting it
- Commonly produces onychomadesis 1-2 mos later (SPD July/Aug 2016)

Hand, Foot and Mouth Disease

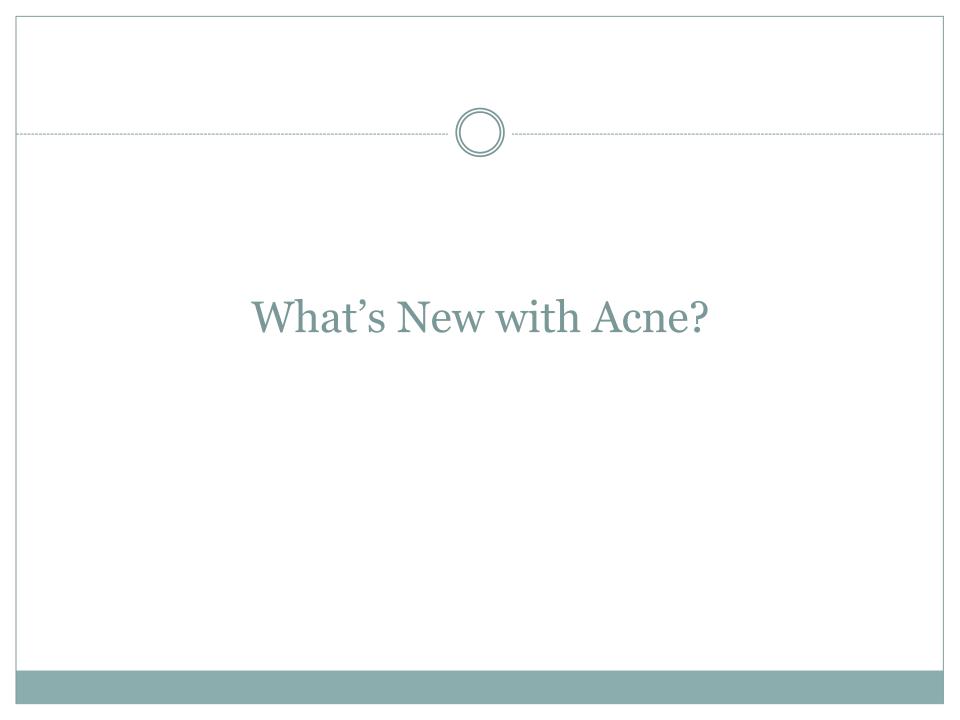




HFMD and Onychomadesis







Mid Childhood Acne

- Acne in kids age 3-7 is NOT normal
- Ask about inhaled steroid use- can be the cause
- Good idea to order labs and/or refer to peds endocrinology
 - Total/free testosterone
 - o DHEA-S
 - o LH/FSH
 - o Bone age- plain film of left hand and left wrist

Acne

- Happening younger and younger
- Used to be abnormal before age 9, now abnormal before age 7
- Most acne medicines are technically approved for age 12 and up
- Helpful to work through the mail order pharmacies in these situations
 - DermRx is my favorite for acne meds

WW

CO-PAY

- The DermRx ZERO copay offer (1). We have your back on de
- Ask if your physician can prescribe a product that Derm
- Remember, no one can compel you to choose a particula

Acne/Rosacea

Adapalene Gel 0.3% - 45g (Not Pump) (Compared to: Differin Gel 0.3%)

NEW Adapalene & Benzoyl Peroxide Gel - 0.1%/2.5% (Compared to: Epiduo Gel 45g pump)

NEW Azelaic Acid 15% Gel - 50g (Compared to: Finacea Gel)

NEW Benzoyl Peroxide 9.8% Emolient Foam - 100g (Compared to: BenzeFoam 100g)

NEW Benzoyl Peroxide 10% Wash - 8oz (Compared to: Panoxyl 8oz)

NEW Clindamycin 1%/Benzoyl Peroxide 5% Gel Pump 50g (Compared to: Benzaclin Gel Pump 1%/5%)

NEW Clindamycin 1.2% / Benzoyl Peroxide 5% Gel 45g (Compared to: Duac Gel)

Clindamycin Lotion 60ml (Compared to: Cleocin T Lotion)

Clindamycin Phosphate Topical Solution 1% 60ml (Compared to: Cleocin T Top. Solution)

Clindamycin Phosphate Gel 1% - 60g (Compared to: Cleocin 1% Gel)

NEW Dapsone 5% Gel - 60g (Compared to: Aczone Gel)

(Exception: \$55 for Dapsone when it is not covered by insurance. Cash \$55)

NEW Doxycycline Hyclate DR USP 150mg - 30 Tablets (Compared to: Doryx 150mg Tablets)

Doxycycline Hyclate IR USP 100mg - capsules (Compared to: Acticlate)

NEW Doxycycline Hyclate Tablets - 75mg/150mg (Compared to: Acticlate 75mg/150mg)

Doxycycline Monohydrate USP 75mg - 60 Tablets (Compared to: Monodox Tablets 75mg)

Erythromycin 3% / Benzoyl Peroxide 5% Gel - 23.3g (Compared to: Benzamycin Gel 3%/5%)

NEW Metronidazole 0.75% Gel - 45g (Compared to: MetroGel)

NEW Metronidazole USP 1% Gel Pump - 55g (Compared to: MetroGel 1%)

Minocycline Hydrochloride ER Capsules - 65mg, 90mg, 115mg (Compared to: Solodyn)

Minocycline Hydrochloride Capsules - 100mg (Compared to: Minocin)

Tazarotene 0.1% Cream - 30g, 60g (Compared to: Tazorac 0.1% Cream)

Tretinoin 0.025%, 0.05%, 0.1% / Tretinoin Cream - 20g & 45g (Compared to: Retin A)

(Exception: \$35 for Tretinoin when it is not covered by insurance. Cash \$35)

Antifungal

Deri

NEW Beta

Calcipotri

NEW Clobe

NEW Clobe

NEW Clobe

NEW Clobe

NEW Clobe

Desonide

NEW Desox

Diclofenac

Fluocinoni

NEW Fluoci

NEW Fluoci

NEW Fluocia

NEW Fluoci

NEW 5-Fu C

NEW Halobe

NEW Hydrod

(Excep

NEW Imiqui

Nivatopic P

Sulfacetami Sulfacetami

NEW Tacroli

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
 - o No vertigo, dizziness, lupus like syndrome, blue skin
- Has been studied and found to have minimal effect on gut flora

Oral Contraceptive Pills

- Given desire to decrease oral antibiotic use, the use of OCPs has become more appealing
- FDA Approved for acne: Ortho Tri Cyclen, EstroStep, Yaz
- My counseling routine
 - How to start the pill
 - o Weight gain, nausea, mood issues
 - o Blood clots, heart attack, stroke
 - Health benefits
 - Timeliness is important

OCPs

- Retrospective review of 2147 patients on OCPs for acne (JDD June 2016)
 - All OCPs help with acne
 - Triphasics probably help a little more than monophasics
 - Non estrogen component matters for efficacy:
 - Best- Drospirenone (Yaz, Yasmin)
 - x 2nd Best- Norgestimate/desogestrel (ortho tri cyclen, ortho cyclen/ mircette, desogen)
 - x 3rd Best- Norethindrone/levonorgestrel (loestrin, ortho novum/seasonale)

OCPs

- Typically want to try to avoid OCPs in girls less than 14 yrs old or girls that have had their period for less than 2 yrs
- Rifampin and Griseofulvin are the only anti-infectives that definitely decrease the efficacy of OCPs when preventing pregnancy
- Risk of clots is greatest when a patient is first starting the pill
- Practical Derm May 2018:
 - O Baseline DVT risk: 3/10000 women/yr
 - o On OCPs: 6/10000
 - On Yaz: 9/10000
 - o Pregnant: 12/10000

Contraindications to OCPs (W.H.O.)

- Pregnancy
- Current breast cancer
- Breastfeeding < 6 wks postpartum
- Age >35 yrs and a heavy smoker
- HTN
- Diabetes with end organ damage
- Diabetes > 20 yrs duration
- History of or current DVT/PE

- Major surgery with prolonged immobilization
- Ischemic heart disease or Valvular heart disease with complications
- History of CVA
- Headaches (migraine with focal neuro symptoms at any age or without aura if >35 yrs old)
- Active viral hepatitis
- Severe decompensated cirrhosis
- Liver tumor (benign or malignant)

Other Hormone Tidbits

- Progesterone only methods of birth control tend to increase acne
 - Implanon
 - o 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 are to 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

Changes in Treatment of Scarring

- A number of studies showed that we don't have to delay treatment for the scarring
- Practical Derm July 2017, JAAD July 2017, JAMA
 Derm August 2017
- Don't have to wait for things like microderm, superficial chemical peels, skin surgery, LHR, fraxel
- I still wait until acne is under control and or/accutane therapy has been completed

Isotretinoin and Depression

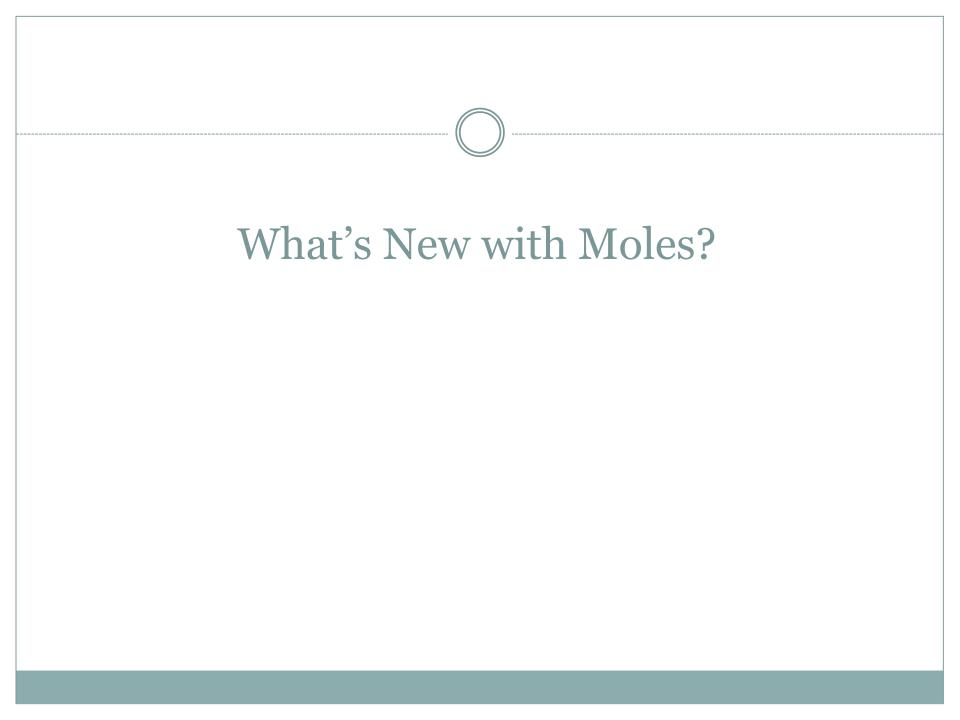
- JAAD June 2017- Isotretinoin and depression- a systematic review and metaanalysis done in Taiwan
- Reviewed 31 studies
- DID NOT show an association
- Most kids had an improvement in their mood

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

Food and Acne

• Diet with a high glycemic index (high carb, high sugar) appears to worsen acne for some people



Eclipse Nevi







Eclipse Nevi

- Very common on the scalp of children
- Frequently biopsied because of somewhat atypical coloring, large size, history of changing
- Often read out as atypical on pathology, but these are known to be completely benign
- Probably a "special site" that isn't currently recognized as a special site

Pediatric Melanoma

Fortunately rare

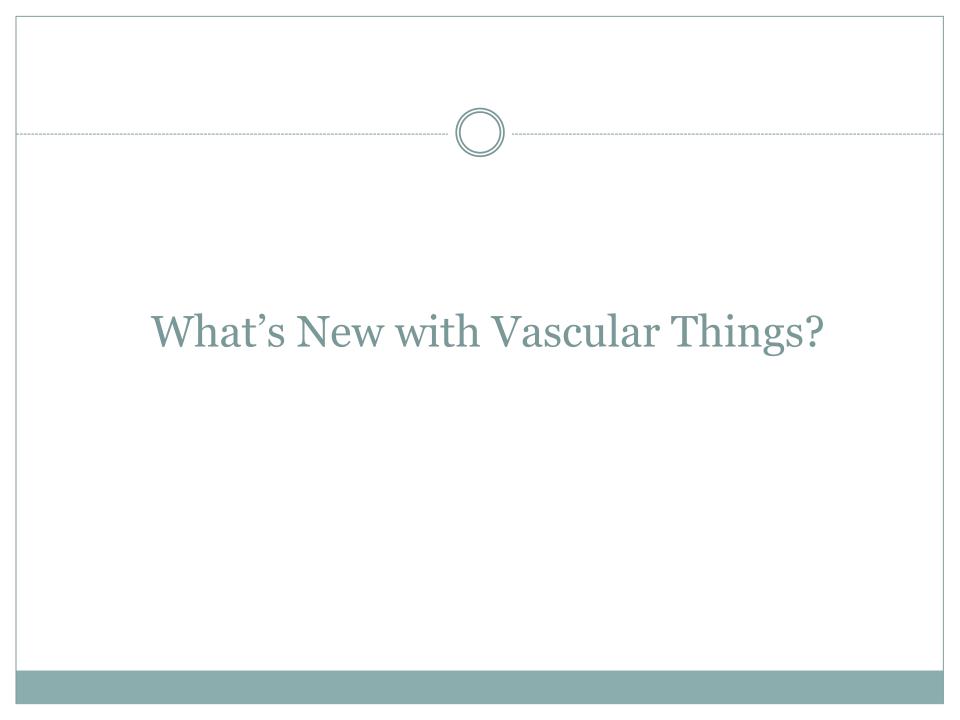
o JAAD Feb 2018 and SPD May/June 2018 wrote about it

• In kids older than 10ish:

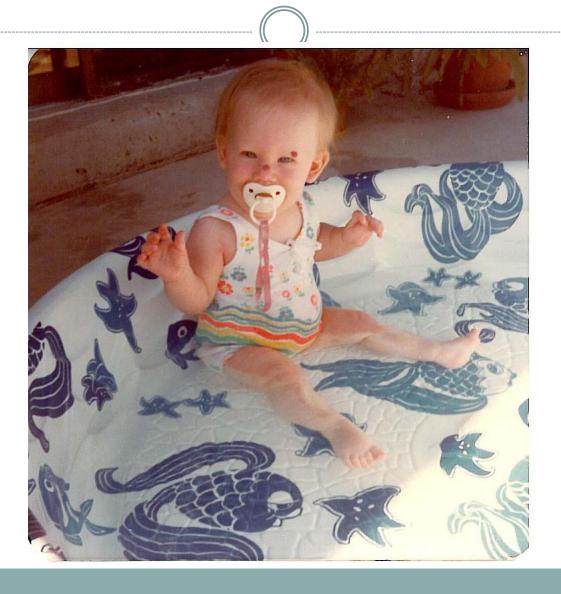
- They tend to look like adult melanomas with the ABCDs, etc.
- o Can be deadly

• In kids younger than 10ish:

- They tend to be spitzoid
- O Clinically amelanotic. Biopsied thinking they are a spitz or a pyogenic granuloma or a wart or an angiokeratoma
- They tend to look worse on path- deeper, more mits, neural invasionbut their prognosis is excellent
- Supports hypothesis that MM in young kids is biologically distinct from MM in adults



Infantile Hemangiomas



Infantile Hemangiomas



Infantile Hemangiomas Propranolol is Still Great!

- Suspension is 20 mg/5 ml
- 2 mg/kg/day divided TID
 - o If you are doing the math correctly, the dose ends up being around 1 ml TID for most babies
- Always give with food
 - To prevent hypoglycemia
- Don't be afraid- if the hemangioma needs it, use it!
- Typically used during growth period (1st 8-12 mos of life), but can work even beyond the proliferative phase (SPD May/June 2015)

Which Hemangiomas Need Propranolol?

- Large hemangiomas
- Ulcerating hemangiomas
- Hemangiomas in functional locations that will interfere with crawling, walking, etc
 - Knees, hands, elbows
- Special site hemangiomas
 - o Eyelids, nose, lips, parotid glands, genital area
- Dome shaped hemangiomas
 - Even when they involute, there is usually residual fibrofatty tissue

Infantile Hemangiomas

- Long term studies show no risk of developmental adverse effects or growth impairment at age 4 in pts treated with at least 6 mos of propranolol (JAAD July 2016)
- More recent study shows the same at age 7, specifically no cognitive impairment (SPD Sept/Oct 2017)
- Topical timolol 0.5% gel forming solution can work for superficial hemangiomas- applied BID

Pyogenic Granulomas

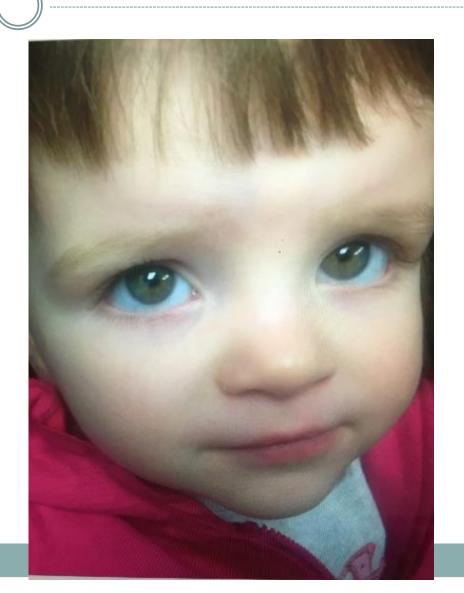
- "Little ball of capillaries"
- Common in kids and pregnant women
- Some people remember trauma to the area prior to its growth
- 2 Treatment Options
 - Shave removal
 - o Topical timolol bid

Pyogenic Granulomas

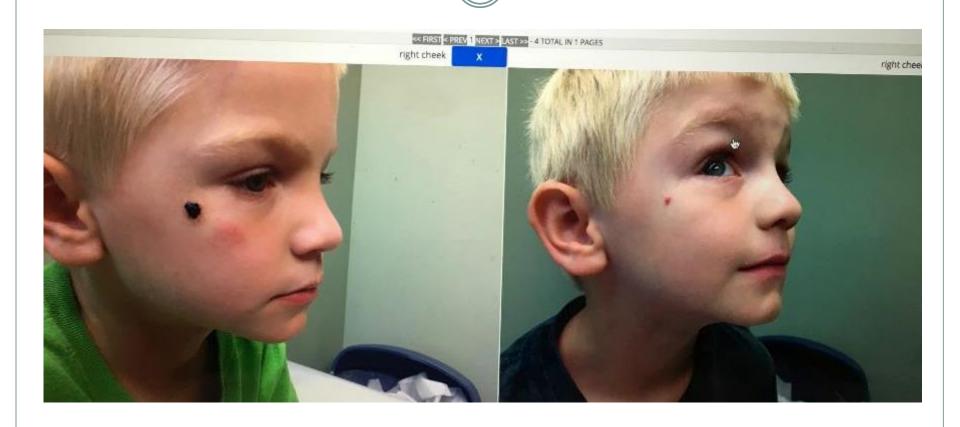
- Initial study in March/April 2014 SPD journal using timolol 0.5% gel forming solution BID
- Great results with clearance after 2-3 mos
- Bleeding stopped relatively instantly
- Likely working by vasoconstriction
- Important to followup these patients to ensure improvement (spitz nevi, even melanoma in ddx)

Pyogenic Granuloma





Pyogenic Granuloma





Warts

Countless treatment options

- Liquid nitrogen
- Cantharidin
- o OTCs
- Candida
- Laser
- Bleomycin

• Best Thing Ever- WartPeel!

- Nucara Pharmacy- Iowa
- o Sal acid + 5FU
- Magic in a bottle
- Applied at bedtime under "sticky tape"
- \$89 and worth every penny!



Advanced Dermatology Skin Connect and Latin System Contex P.C.

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To: Nu Cara Pharmacy 1-515-292-3645

ADDRESS	
ALLERGIES	
DATE	DOD
DAYTIME PHONE	
	d) in Remedium [™] Delivery System Must yringe to ensure quality of medication.
SI6: Apply once daily fo	llowing instruction sheet
DISP: 5gm	
Refill:	
SIGNATURE:	
PRINTED NAME:	
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CLINIC: ADVANCED DERMATOLOGY

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PATIENT



Medication...Customized aspecially for youl

Your practitioner has prescribed a specially compounded medication from: NuCara Pharmacy 2709 Northridge Pkwy Ames, IA 50010 Phone: (515) 292-3604 Fax: (515) 292-3645

Please call the number below to make arrangements to receive your medication. 1-515-292-3604

Between 9:00 am - 5:00 pm M-F (CST)

Thank you!

Please watch out instructional video at www.WartPeel.com

WARTpool® (Sfu, sal acid) in Remodium® Delhrary System Medication Fact Sheet

This medication was custom compounded for you based on the prescription orders of your physicien. Must be dispensed in ambar syringe to ensure quality of medication.

Prior to using this medication, it is important to inform your physicien if you are pregnant or thinking of becoming pregnant.

Description of this medication:

This medication contains Selicytic Acid and 5-fluoround in a proprietary base that is used to best warts.

How to use this medication:

- 1. Apply medication at bodtime.
- 2. Apply very small amount of medication to a flat plastic applicator. Use the applicator to apply a thin layer directly onto the wart. Use care to avoid applying the medicine to healthy skin. The medicine will break down healthy skin as well as the warts. Throw the applicator away.
- 3. Occlude the wart with the tape provided.
- 4. Put the cap back tightly on the syrings.
- 5. Wash hands after applying the medicine, NEVER put the WAR (peel* in the mouth, nose or eyes.
- 6. Remove the occlusion in the morning and wash the area thoroughly.
- 7. In case of accidental Ingestion or contact with eyes, mass, or mouth, contact McCara Phermacy or the local poison control center.

During the first few days of application, the skin around the wort may awell and become white. This will slough off with continued applications.

Normal dosage:

The medication is applied once daily for a time determined by your physician.

Storage Requirements:

Store this medication at more temperature. Keep out of reach of children. Protect from light.

The medication is good for four months from the date made. Do not keep audicted medication.

Rash and Inflation, if medication is applied to good, healthy skin.

Courties and Warrings: Only apply the medication to the worts. Do not apply to good skin. Keep away from children. Do not use on nose, eyes, or mouth.

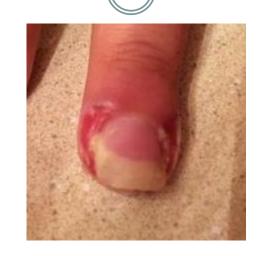
WartPeel- WOW!



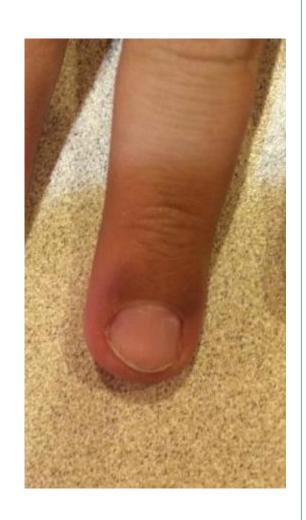


WartPeel- AMAZING!



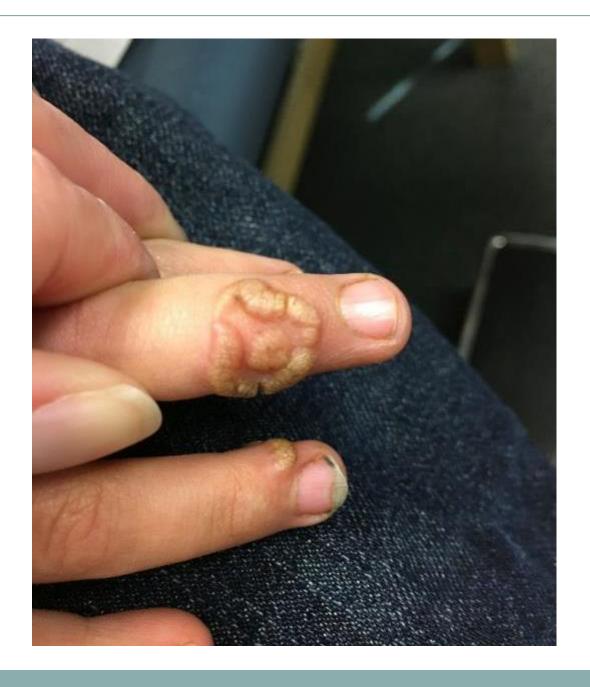






Ring Phenomenon

- Typically associated with cantharidin
- Can happen with liquid nitrogen
- The treated wart may or may not go away and then a ring of warts develops around the initial wart
- If you continue that treatment, the ring gets bigger
- I feel it is happening more and more commonly with cantharidin these days



Warts and HPV Vaccination

- Mounting number of case reports showing that when pre-teens and teens are given HPV vaccine, their warts go away
- It will be interesting to see if we notice a decrease in incidence of warts over time as more and more people get immunized

Warts vs Corn: A Handy Trick

- Press on top of it
 - o If it hurts, it is a callus/corn
- Press on the sides of it (squeeze it)
 - o If it hurts, it is a wart

Molluscum Contagiosum

- Caused by a poxvirus
- Very common in kids- pretty much all kids get them
- Spread by direct contact and spread like crazy in water (including swimming pools)
- Treatment is not mandatory as they will go away with time
 - o Can take up to 2 yrs to resolve on their own
 - o 2015 study of 170 kids- half treated, half not treated
 - × Molluscum resolved in the same amount of time

Molluscum Treatment Options

- Imiquimod?
- Zymaderm
 - All natural OTC product, botanical based
 - Applied BID
- Candida antigen injections
 - Injected into 1-2 of the molluscum every 3 wks
 - Tolerable; typically 3-5 treatments
 - Side effect profile favorable

Cantharidin

- Never use it in the axilla
- Blisters can be bad
- 50% resolution with each treatment is success
- Hard to get these days
- WartPeel?
 - Teeny dab MWF at bedtime
 - Just treat 3-4
 - No sticky tape
- Curettage
- Liquid Nitrogen
- Topical retinoids
- KOH 10% daily?

Molluscum Treatment Options On the Horizon

- Verrica- 0.7% cantharidin
 - Due for approval shortly
- SB206- Nitric oxide product applied daily
 - O Complete clearance at week 12 for most patients in phase 2
 - O Phase 3 trials in 2019

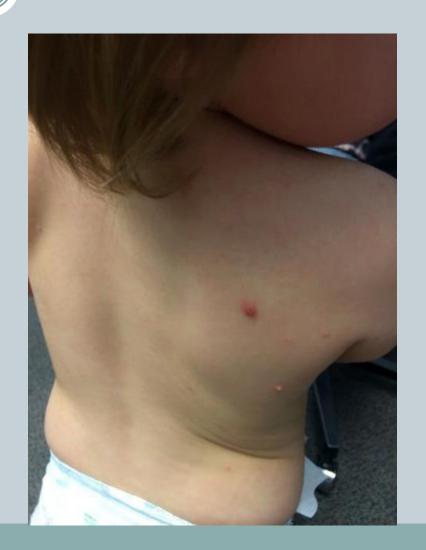
Molluscum Dermatitis

- Some kids will get an eczema like rash around the molluscum
- Important to treat it as it itches so kids scratch and then spread the molluscum



Pseudofurunculoid Molluscum

- Look like pimples/boils
- Due to body's immune system response
- Not infected, just inflamed
- BOTE sign- Beginning
 Of The End



Pseudofurunculoid Molluscum





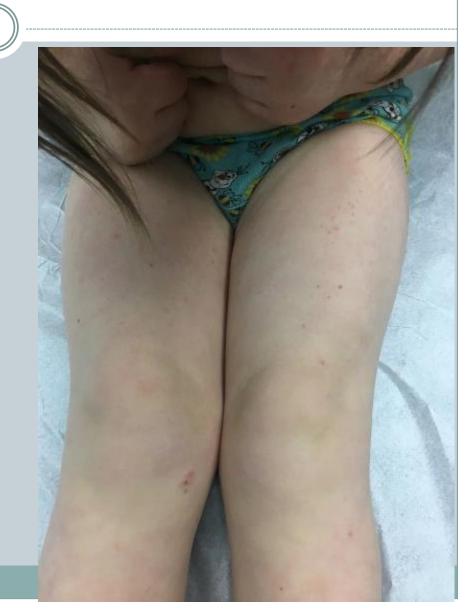
PF Molluscum and Id Reaction





PF Molluscum and Id Reaction

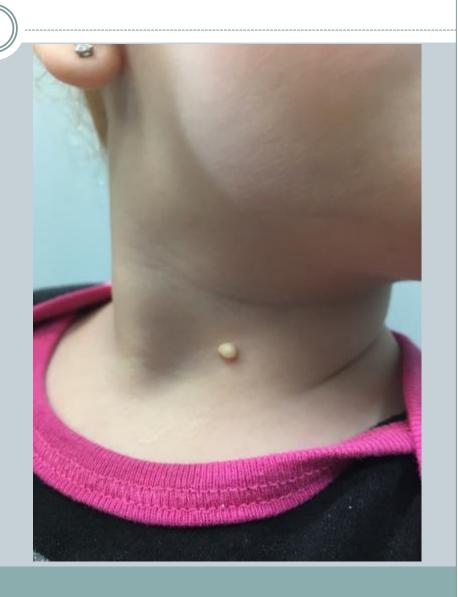
- Treat the Id Reaction with topical steroids
- Treat the PF
 molluscum with oral
 antibiotics or bleach
 baths
- F/u 2-3 wks
- Usually everything is "all better"



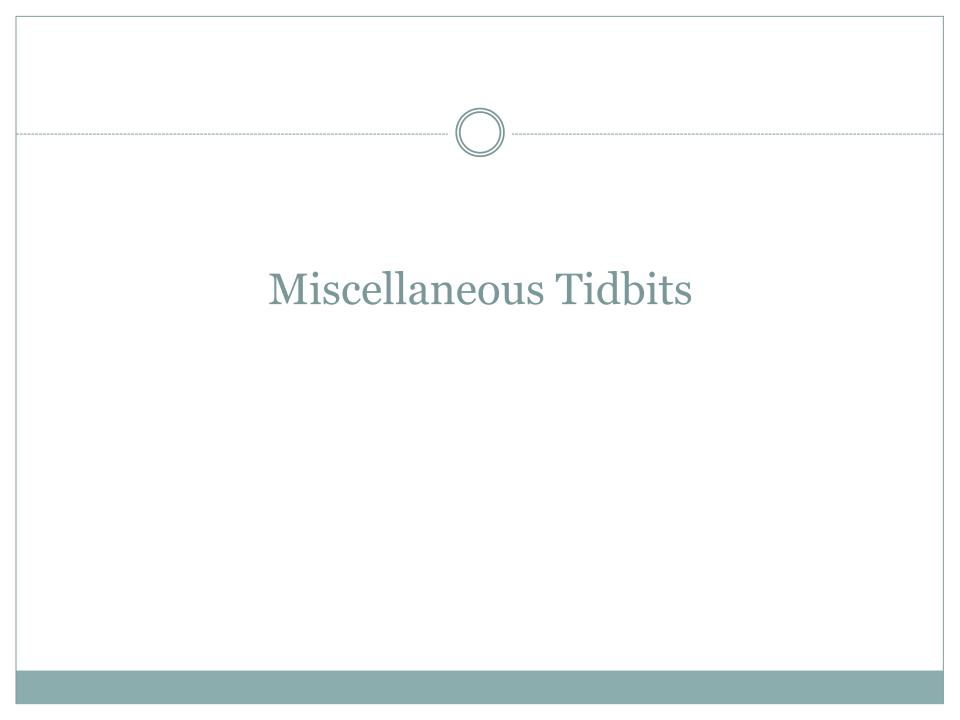


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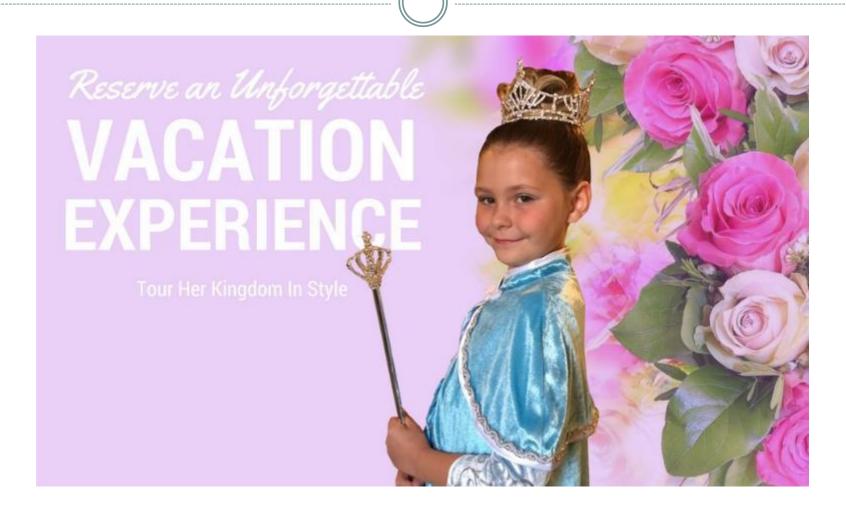
- "Midline Anterior Neck Inclusion Cyst"
- Giant milia in the suprasternal notch at birth
- Benign
- Can be removed or can resolve on own
- Shave can be used to remove







Princess Package at Disneyland SPD May/June 2018



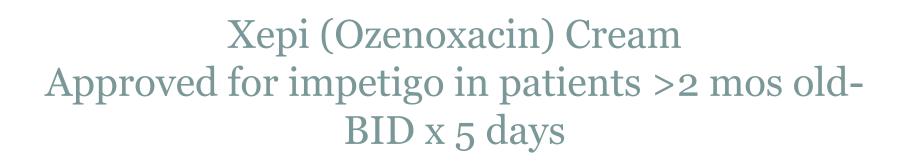


Topical Rapamycin for lymphangiomas

- Peds Derm July/Aug 2018- topical sirolimus 0.1% useful for lymphangiomas. Response in less than 3 mos with bid application
- JAAD Feb 2019- Topical rapamycin effective for lymphangiomas
- Prescribe 15 1 mg tablets to usual pharmacy (typically covered). Bring them to compound pharmacy and have them crush and compound it into emollient cream base to make 15 gms of rapamycin 0.1% cream. 1-2 month supply. Cost usually \$45.- SPD Sept/Oct 2015.

Topical Rapamycin for Lymphangiomas

- Chemistry Rx compounds it
 - o Can get it with glitter!
- Systemic sirolimus levels are NOT detectable when used topically for vascular malformations (SPD July 2019 Poster)



MAM Air Pacifier

- For kids that have persistent dermatitis around the mouth, drool and irritation from pacifiers are a common cause
- Recommend the MAM
 Air Pacifier which is
 more open than most



The End!

- Feel free to contact me with any questions
- lisaswansonmd@gmail.com

