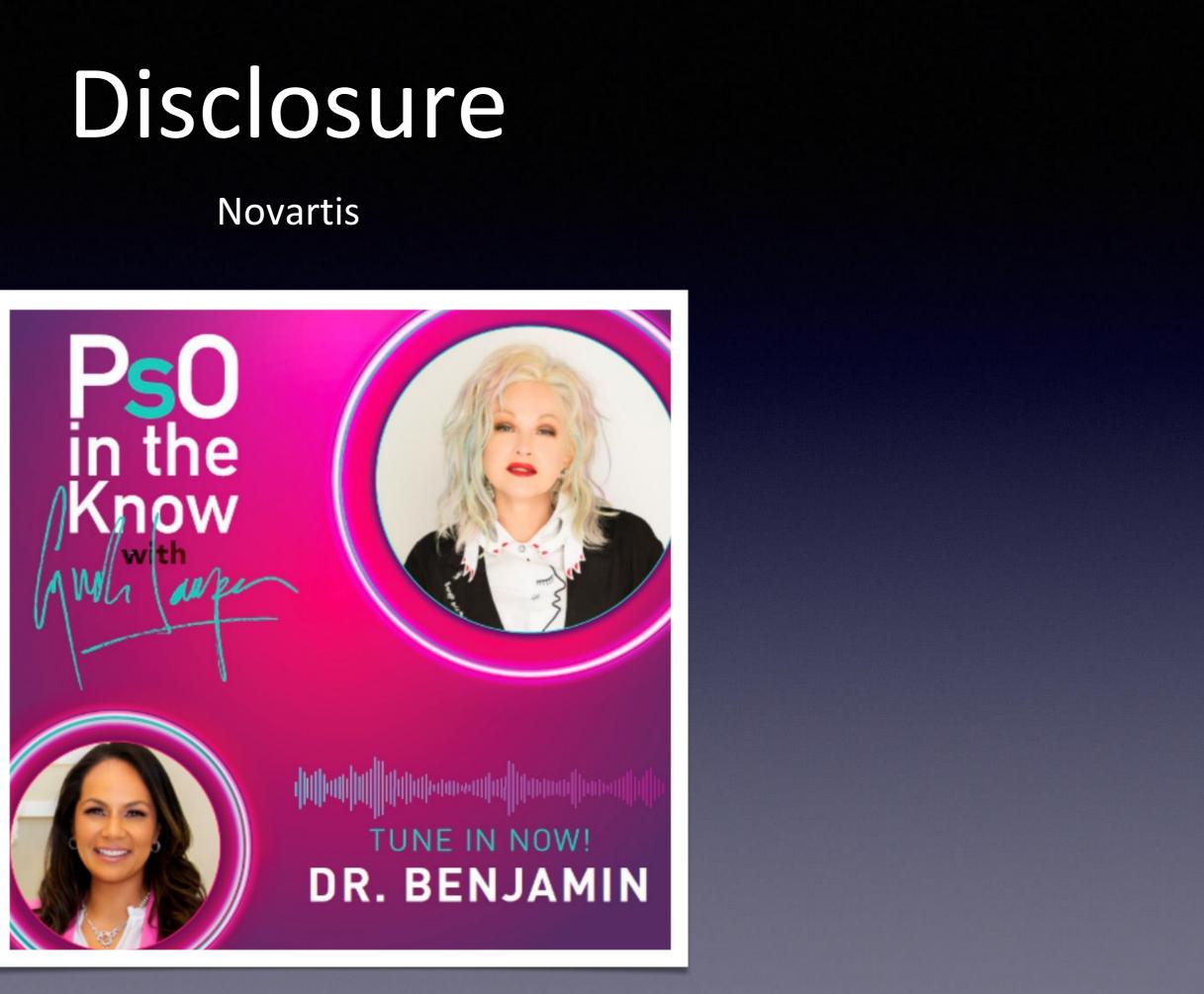
A New Age in Pediatric Psoriasis: **Case-Based Learning for Inclusive Care**

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Learning Objectives

- Identify key clinical features for accurate diagnosis of psoriasis in pediatric patients across skin types
- Review the efficacy and safety of current and emerging therapies for pediatric psoriasis
- Develop individualized treatment plans for pediatric patients with moderate-to-severe psoriasis

Psoriasis

- Chronic, mutisystem, inflammatory disease
- Occurs in 2-4% of the general population
- Affects approx 1% of children
- Characterized by bright red, plaques with silvery scales
- Wide spectrum of clinical manifestations (scalp, nails, joints, palmoplantar)
- Can have an immense impact of QOL



Psoriasis Epidemiology

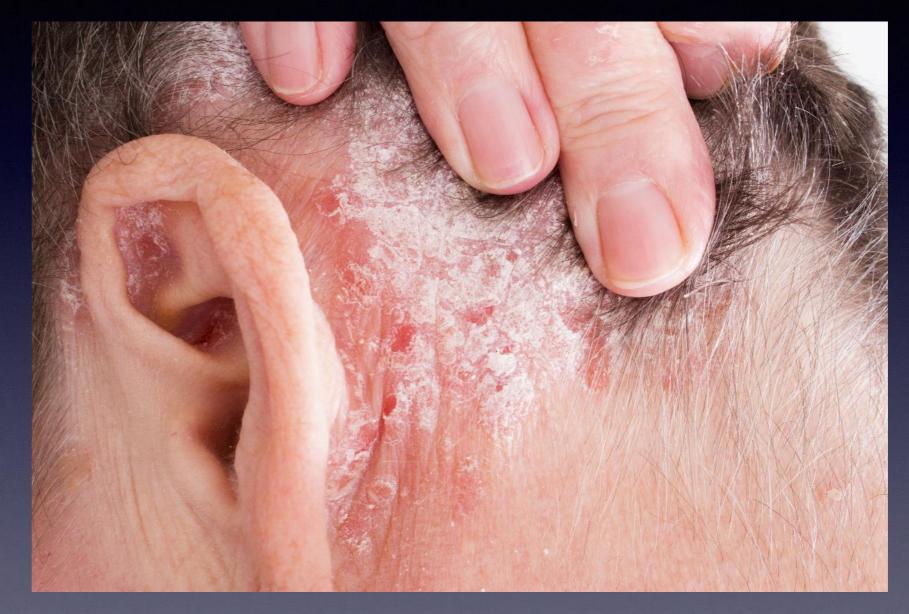
- Although psoriasis occurs worldwide, its prevalence varies
- High rates in people of Faroe islands (2.8%)
- Prevalence low in certain ethnic groups - Japanese
- May be absent aboriginal Australians, Indians from South America



Langley R, Krueger G, Griffiths C Ann Rheum Dis 2005;64(2)ii18-ii23

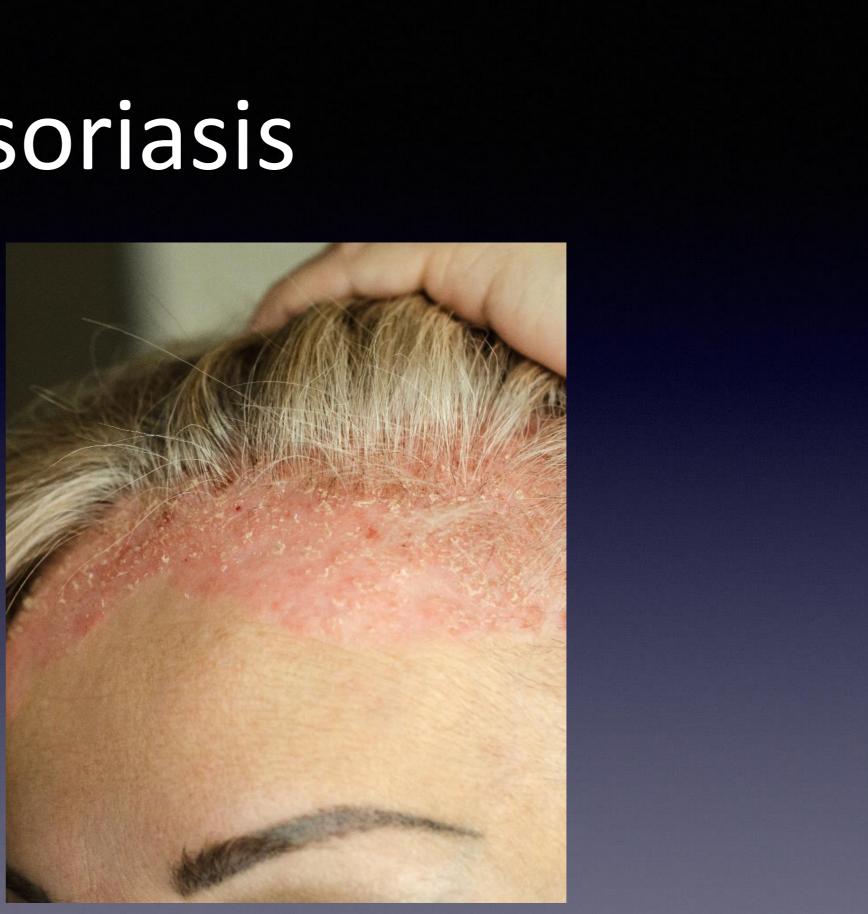
Clinical Manifestations of Pediatric Psoriasis

- Plaque
- Inverse
- Guttate
- Pustular
- Erythrodermic
- Scalp
- Diaper area
- Palmoplantar
- Nail
- Extracutaneous involvement



Scalp Psoriasis

- Minority groups are less likely to see a dermatologist for their psoriasis in the US
- Scalp psoriasis in AA have used traditional/cultural therapies before seeking dermatologic consultation



Fischer AH, Shin DB, Gelfand JM, Takeshita J. Health care utilization for psoriasis in the United States differs by race: an analysis of the 2001-2013 Medical Expenditure Panel Surveys. J Am Acad Dermatol. 2018;78(1):200-203

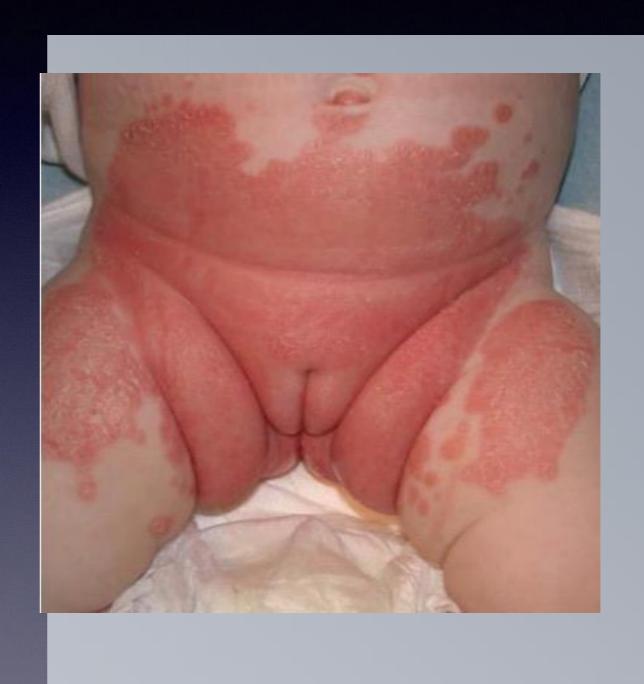
Itching

- Psoriasis is typically itchy in scalp and legs
- Patients should refrain from scratching or rubbing lesions, skin trauma = (koebnerization)



Infantile Psoriasis

- Psoriasis in infants typically involves the diaper area and face
- Symmetrical, well-demarcated
- Nail findings (10%) infants
- Lesions may be pruritic
- Pearl: Usually less white scales on the plaques of infants



Guttate Psoriasis

- Guttate psoriasis occurs in all races
- Pruritic
- Common triggers
- Postinflammatory pigmentary changes can follow
- Pearl: Asia descent often small plaque variant (DDx)



Inverse Psoriasis

- AKA Intertriginous or flexural psoriasis
- Inframammary, axillae, inguinal folds
- Sharply demarcated
- Lacks thick silver scales
- Smooth, moist, macerated



Differential Diagnosis

- Intertrigo
- Candidiasis
- Erythrasma
- Hailey-Hailey disease
- Darier disease







papular pityriasis rosea



Inverse and . . .

Differential Diagnosis

Diagnostic tools for appropriate identification of psoriatic lesions

- Biopsy
- Dermoscopy



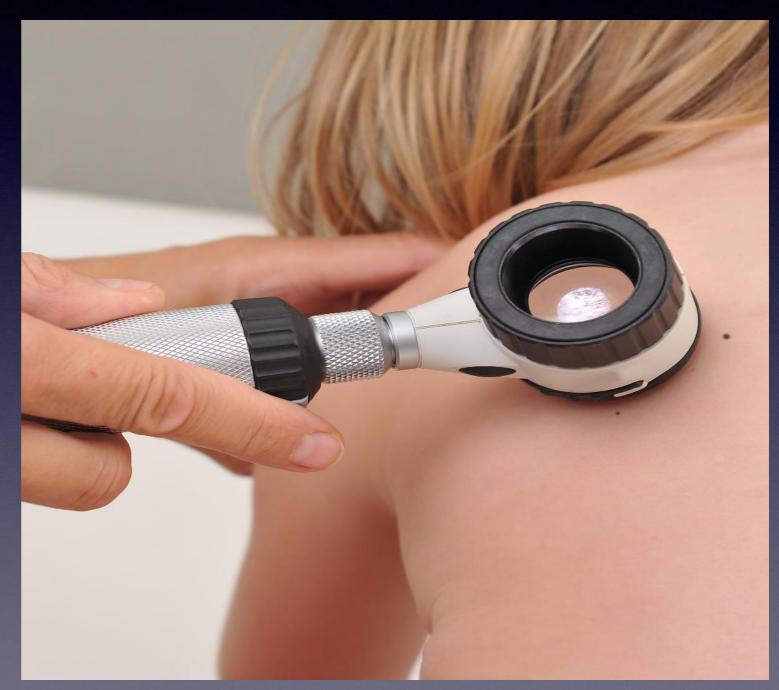
Dermoscopy

- Hallmark: Uniform dotted/globular vessels & diffuse white scales
- Hemorrhagic dots/globules also commonly seen (related to scratching)
- Videodermoscopy (higher magnification): dilated vessels show a bushy appearance
- Several studies have demonstrated that videodermoscopy f/up of psoriasis may facilitate tx response assessment by showing changes in vessels morphology and diameter

Errichetti E. Dermatology and Therapy 2020 10; pp.119-1214

Hand-Held Dermoscopy (x10 magnification)

- May be of aid in treatment outcomes assessment in plaque-type psoriasis
- Appearance of hemorrhagic dots in first weeks of treatment is a predictor of subsequent response to biological agents
- With topical therapy, relapse is strongly associated with the persistence of vascular structures (dotted or globular vessels)

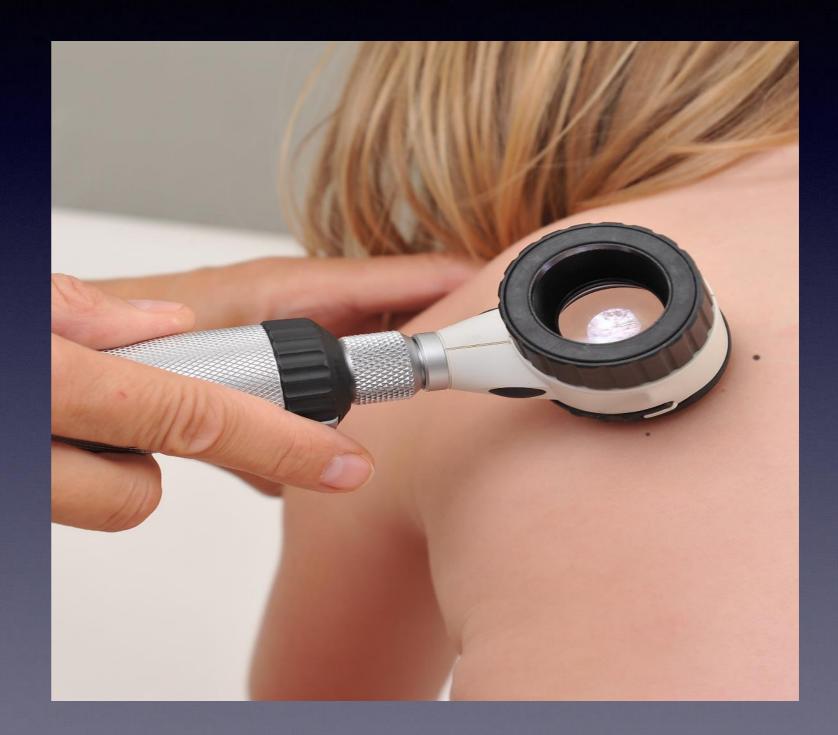


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Hand-Held Dermoscopy

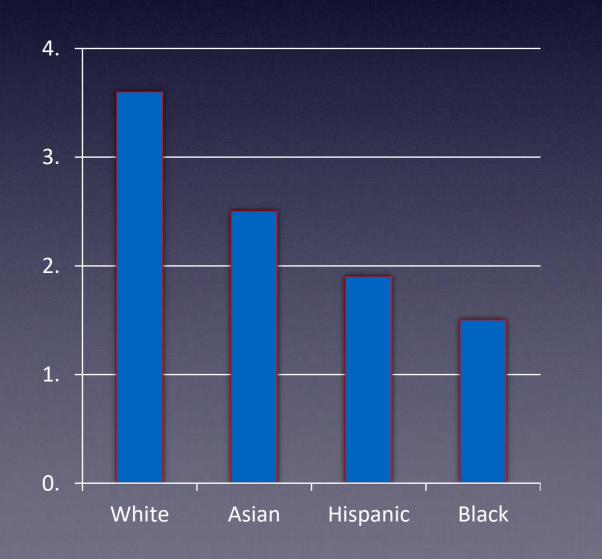
Also helpful in early detection of

- 1) Disease recurrence-dermoscopic changes occur prior to clinical worsening
- 2) Steroid-induced skin atrophylinear/reticular vessels before telangiectasia become clinically apparent



Psoriasis- Race & Ethnicity

 In a 2021 study, the percentages of adults 20 years and older who'd been diagnosed with psoriasis





Psoriasis- Question 5 Racial Differences in Presentation

Compared to White patients, which ethnoracial group has been reported to have higher PASI scores?

- A. Asian
- B. Black
- C. Hispanic

Psoriasis- Question 5 Racial Differences in Presentation

Compared to White patients, which ethnoracial group has been reported to have higher PASI scores?

A. Asian

B. Black

C. Hispanic

Kerr GS et al. Clin Rheumatol. 2015;34:1753-1759

Psoriasis-Racial Differences in Presentation

As compared to White patients, Black patients may experience:

- 1. More extensive disease involvement/BSA at initial presentation
- 2. Less conspicuous erythema (usually appears violaceous)
- 3. More hypo- or hyperpigmentation



Ethno-racial Presentations





National Psoriasis Foundation Study

- Found 72% of minorities reported an impact on their QOL \bullet due to psoriasis (54% in Caucasians)
- African Americans and Hispanic/Latino psoriasis patients experience a greater negative impact on QOL compared to Caucasians, *irrespective* of severity
- A higher percentage of African Americans (23%) reported having very severe psoriasis compared to Caucasian patients (8%)

1. Alexis AF, Blackcloud P. J Clin Aesthet Dermatol. 2014;7(11):16-24 2. Yan D, Afifi L, Jeon C, et al. Dermatology Online J. 2018;24(7):4



Treatment Gaps

- In the United States, Black patients are less likely to receive biologic treatment for psoriasis compared to White patients
- In a 2015 study, the odds of receiving a biologic therapy to treat psoriasis was 69% lower in Black patients than in White patients
- Biologic-naive participants were more likely to be receiving phototherapy or topical therapy only
- They were also less likely to have received oral systemic therapy in the past

Takeshita J et al. J Invest Dermatol. 2019;139(8):1672-1679.

Takeshita J, Gelfand JM, Li P, et al. Psoriasis in the U.S. Medicare population: prevalence, treatment, and factors associated with biologic use. J Invest Dermatol. 2015;135(12):2955-2963

What's New in the Toolbox for **Pediatic Psoriasis?**

Dr. Adelaide Hebert

Thank you!

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Case #1







Psoriasis- Question 3 Racial Differences in Presentation

Compared to White patients, which ethnoracial group is less likely to present with inverse psoriasis?

A. Asian

B. Black

C. Hispanic

Psoriasis- Question 3 Racial Differences in Presentation

Compared to White patients, which ethnoracial group is less likely to present with inverse psoriasis?

A. Asian

B. Black

C. Hispanic

Nicholas MN et al. Cutis. 2020;106(2S):7-E10

Psoriasis- Question 4 Racial Differences in Presentation

Compared to White patients, which ethnoracial group has been reported to have lower frequencies of PsA?

- A. Asian
- B. Black
- C. Hispanic

Psoriasis- Question 4 Racial Differences in Presentation

Compared to White patients, which ethnoracial group has been reported to have lower frequencies of PsA?

A. Asian

B. Black

C. Hispanic

Kerr GS et al. Clin Rheumatol. 2015;34:1753-1759