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PEDIATRIC PSORIASIS

PART 1

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PEDIATRIC DERMATOLOGY

ASSISTANT PROFESSOR

OBJECTIVES

- Epidemiology
 - Clinical features focused on pediatric cases
 - Comorbidities
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- Joint American Academy of Dermatology–National Psoriasis Foundation Guidelines of Care for the Management and Treatment of Psoriasis in Pediatric Patients – JAAD 2020
 - Pediatric Psoriasis Comorbidities Screening Guidelines – JAMA Dermatol 2017



EPIDEMIOLOGY



EPIDEMIOLOGY OF PEDIATRIC PSORIASIS (PPSO)

- Psoriasis affects 2%–4% of people in the US, onset during childhood in 1/3 of cases
- Affects **1% of all children**, mean age of onset is **8 -11 years old**
- Incidence of PPSO has more than doubled between 1970 and 2000

UNIQUE CHARACTERISTICS OF PEDIATRIC PATIENTS

- **Group A Strep** pharyngitis (28% in children vs 12% in adults)
- Second-hand smoke at home
- **Obesity** (38% PPSO patients vs 20% controls)
- **Spontaneous remission** in 35% of children vs compared to 24% in adults
- **Pruritus** is frequent complaint in PPSO
- Less associated with medication use
- Typical clinical features



CLINICAL CHARACTERISTICS



CLINICAL CHARACTERISTICS

- Plaque psoriasis
- Most common morphology
 - Thinner plaques
 - Annular plaques



CLINICAL CHARACTERISTICS

- Facial involvement is more common in PPSO vs adults
- May be isolated in 4-5% of pediatric patients



CLINICAL CHARACTERISTICS

- Guttate psoriasis is the 2nd most common subtype of PPSO
- Is the initial manifestation in 44% of PPSO cases
- Strep A – 2/3 patients have hx of URI 1-3 weeks before onset of disease or before flares
- 40% of children with guttate psoriasis progress to plaque type



CLINICAL CHARACTERISTICS

- Scalp psoriasis
- Common initial site of involvement
- Pityriasis amiantacea can affect up to 15% of PPSO patients



CLINICAL CHARACTERISTICS

- Diaper and genital psoriasis/ Inverse psoriasis
- Common initial site of involvement
- Koebinerization?
- Decreased scales due to moisture and occlusion
- Superinfection, fissures



CLINICAL CHARACTERISTICS

- Nail psoriasis
- Can be presenting feature
- One of the causes of trachyonychia ("sandpaper nails")
- 40% of children with psoriasis



CLINICAL CHARACTERISTICS

- Overlap PPSO and atopic dermatitis - both morphologies on same patient or intermediate morphology
- "Psoriasis Dermatitis" or "PsEma"
- 2-3% adults and up to **25% of children with PPSO**

- 24 children with PD, median age 7 yo, follow up 30 months
 - 83% developed a clinical definite form of PPSO or AD
 - 8 (44.4%) developed PPSO
 - 7 (38.9%) developed AD
 - Unchanged in 2 patients (11.1%)
 - Resolution without treatment in 1 patient (5.6%)



RARE PRESENTATIONS

- erythrodermic psoriasis
- pustular psoriasis (CRMO – chronic recurrent multifocal osteomyelitis)
- palmoplantar psoriasis





COMORBIDITIES



OBESITY AND METABOLIC SYNDROME

- Prevalence of obesity approximately double that of unaffected control individuals
- 92% patients were overweight or obese before onset of psoriasis
- BSA involvement proportional to BMI elevation
- Nonalcoholic fatty liver disease risk – **ALT every 2-3 years, starting at age 9 yo**



OBESITY AND METABOLIC SYNDROME

- Routine assessment of obesity status
- Routine assessment of comorbidities of obesity
- Screen for **NAFLD every 2-3 years with ALT, starting at age 9 yo**



PSORIATIC ARTHRITIS (PSA)

- Lower prevalence than in adults (0.7%) but increases with age
- 2 peaks
 - 2-3 yo girls (oligoarticular disease/dactylitis)
 - 10-12 yo boys (enthesitis, axial joint involvement)
- PSA patients may develop uveitis



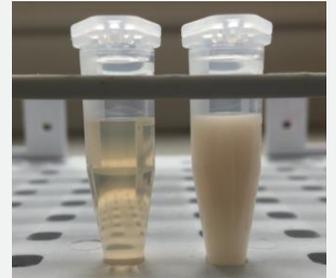
PSORIATIC ARTHRITIS (PSA)

- Educate patients on PSA
- Routinely screen for PSA symptoms
- If positive screen, refer to Rheumatology
- PSA patients routinely screened for uveitis
- If positive screen, refer to Ophthalmology



DYSLIPIDEMIA, HYPERTENSION, INSULIN RESISTANCE

- LIPIDS - Standard AAP screening guidelines with screening between ages 9 -11 years and repeat between 17-21 years
- BLOOD PRESSURE – Standard AAP screening with annual checks after age 3 years
- INSULIN RESISTANCE - Standard screening ADA with fasting serum glucose every 3 years in obese patients or at age 10 years for non-obese children



MENTAL HEALTH

- Visible skin disease is highly stressful for children
- Impact on QOL similar to diabetes, epilepsy, AD
- 65% PPSO patients refer mental health problems
- Increase risk of developing depression, alcohol abuse, drug abuse, eating disorders, use of psychiatric medications
- **Routine screening for mental health disease, substance abuse**



INFLAMMATORY BOWEL DISEASE

- The risk of inflammatory bowel disease in children with psoriasis is 3 to 4 times higher than in children without psoriasis
- Screening for IBD is recommended if patients have **gastrointestinal symptoms, poor growth, or unintentional weight loss**





THANK YOU!

