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# Pediatric Dermatology Instructive Cases

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## Disclosures

**Dermatology Foundation has supported my career!**

**Consultant, Speaker or Investigator:**
**Amryt**
**Beiersdorf**
**Derm Times**
**Eli Lilly**
**La Roche-Posay North America**
**Med-IQ**
**Nobelpharma**
**Ortho Dermatologics**
**Sanofi**
**Sun Pharma**
**Solici**

*Discussion is based on evidence-based recommendations and public presentations/publications.*

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## History

- 5 mo boy presents with a "bruise" that started 3 months ago that is misdiagnosed as congenital hemangioma and ultimately diagnosed as kaposiform hemangioendothelioma with response to sirolimus

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| Feature | Infantile Hemangioma | Kaposiform Hemangioendothelioma |
|---|---|---|
| Incidence | Common | Rare |
| Sex ratio (female to male) | 3–5:1 | 1:1 |
| Location (listed in descending order of frequency) | Head or neck, trunk, extremities and viscera | Trunk and extremities, head or neck, visceral invasion |
| Appearance | Single lesion, 80%; multiple lesions, 20%<br>Variable size and shape<br>Red, bosselated, firm | Single lesion<br>Large (>5 cm in diameter)<br>Purple, shiny, indurated |
| Course | Rapid growth<br>Slow regression<br>Complete involution | Rapid growth<br>Variable shrinkage<br>Never disappears |
| Coagulopathy | Negligible | Thrombocytopenia |
| MRI findings | Well-defined margins<br>Lobulated<br>Uniform enhancement<br>Flow voids | Ill-defined margins<br>Crosses tissue planes<br>Diffuse enhancement<br>Cutaneous thickening<br>Stranding of subcutaneous fat |

Ji Y, J Rare Dis 2020.

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## Key Points

- Clinical and pathological correlation is integral and was the key in this case
- KHE and Congenital Hemangiomas can present similarly at birth
- D2-40 is a marker for angiogenesis and lymphatics and can respond to oral sirolimus
- Complications of KHEs include: KMP, MSK, Lymphedema and compression of vital structures
- Systemic KHE treatment: reports of Sirolimus, Corticosteroids and Vincristine (possibly alpelisib)

Pandey V, Br J Oral Maxillofac Surg 2019.

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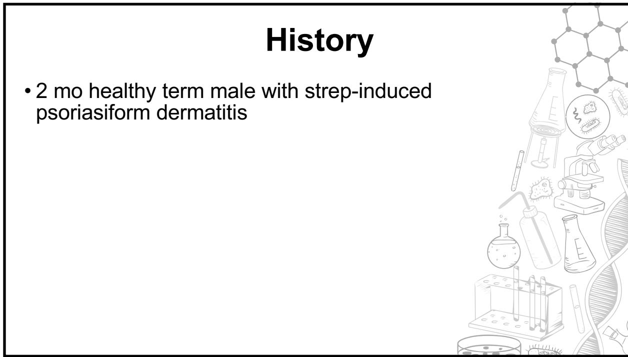


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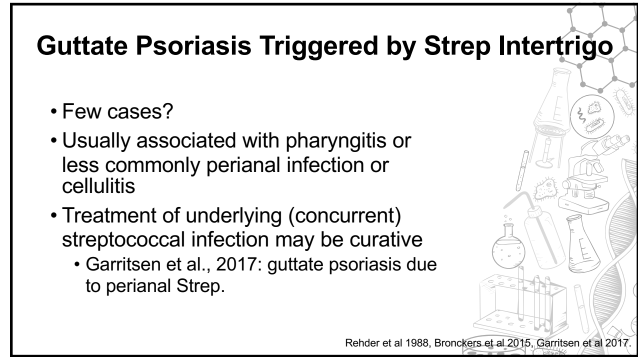


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## AAD-NPF Pediatric Psoriasis Guidelines Classifies Severity by BSA & Others…

**Severity Classification by BSA**

- <3%: Mild
- 3 to 10%: Moderate
- >10%: Severe

- BSA should not be the sole predictor of disease severity
- The disease location on the body and impact on physical, social, psychological, and ADLs should be considered

Menter A et al. J Am Acad Dermatol. 2020 Jun;82(6):1445-1486

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## Psoriasis maybe triggered or exacerbated by infections; physiologic, emotional and environmental stressors; and cutaneous trauma (Koebner)

**Examples**

- Emotional stress
- Increased BMI
- Second-hand cigarette smoke
- Pharyngeal and perianal group A streptococcus
- Kawasaki disease
- Systemic corticosteroid withdrawal
- TNF-inhibitors (paradoxically)

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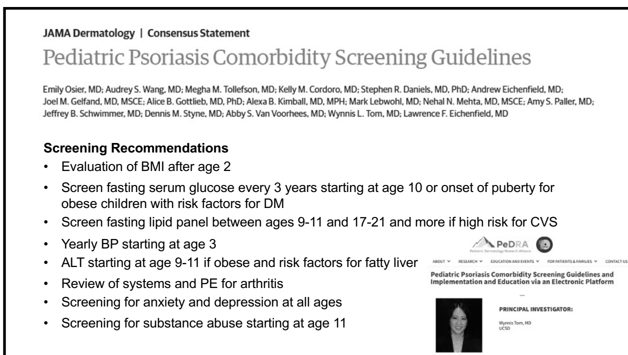


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## Take Away Points

- Ddx of intertriginous erythema and papulosquamous dermatitis in infants
  - Seborrheic dermatitis, atopic dermatitis, inverse psoriasis, intertrigo +/- secondary infection, viral associated, pityriasis, scabies, erythrasma
  - Rare: Langerhans cell histiocytosis, acrodermatitis enteropathica
- Consider secondary infection if pustules, crusts, or vesicles are present
- Check for source of Strep infection in patient with guttate psoriasis (pharyngitis, perianal, intertrigo)

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CASE REPORT

Pediatric Dermatology WILEY

## Congenital syphilis presenting with granulomatous scalp nodules

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**Abstract**
We describe a case of congenital syphilis in an adopted infant with a unique dermatologic presentation of scalp granulomas, along with lymphadenopathy, anemia, and elevated liver transaminases. To our knowledge, this cutaneous morphology has not been previously reported in the literature. This case highlights the varied clinical presentation of congenital syphilis and the diagnostic challenge it poses for clinicians, especially in the context of unknown prenatal history/unknown risk factors, or if syphilis is acquired during pregnancy after routine screening is performed. As the incidence of congenital syphilis has more than tripled in recent years, this diagnosis should be considered when a neonate or infant presents with unexplained skin nodules.

KEYWORDS
congenital syphilis; granuloma; pregnancy complications, infectious; sexually transmitted diseases; treponemal infections

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## History

- 16 year old boy with secondary syphilis (oral and genital lesions)

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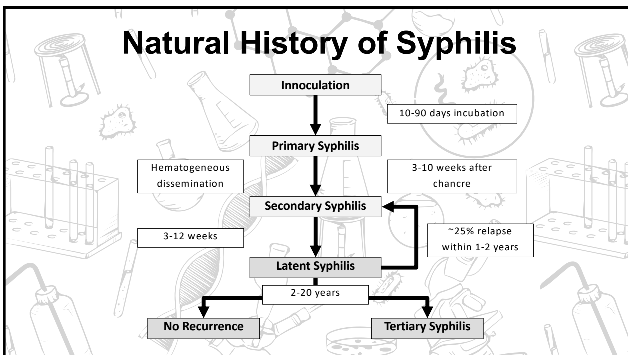


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## How Infectious is Syphilis?

- Sexual transmission: exposure to open lesions with organisms present (efficiency ~30%, 10-60%); oral and genital
- Cutaneous lesions contain few treponemes
- Sexual contact with patients with early syphilis is associated with the highest risk of developing the disease
- Early latent syphilis: considered infectious due to concern for recently active lesions but associated with lower risk

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## Response to Live Organisms

Medicine (Baltimore). 1956 Feb;35(1):33-82.

**Inoculation syphilis in human volunteers.**

MAGNUSON HJ, THOMAS EW, OLANSKY S, KAPLAN BI, DE MELLO L, CUTLER JC.

TABLE VI

*Results of multiple graded intracutaneous inoculums of virulent* T. pallidum *into non-syphilitic humans and rabbits*

| Size of Inoculum | # Sites Inoculated | # DF Positive | Humans Days to Appearance | | # Sites | # DF | Rabbits Days to Appearance | |
|---|---|---|---|---|---|---|---|---|
| | | | Range | Mean | | | Range | Mean |
| 10 | 8 | 3 | 20–42 | 28.7 | 12 | 4 | 22–27 | 24.2 |
| $10^2$ | 8 | 5 | 17–24 | 20.2 | 12 | 11 | 20–35 | 24.2 |
| $10^3$ | 8 | 8 | 10–31 | 19.1 | 12 | 11 | 13–24 | 19.8 |
| $10^4$ | 8 | 8 | 10–24 | 18.6 | 12 | 12 | 11–42 | 16.9 |
| $10^5$ | | | | | 12 | 12 | 9–15 | 11.0 |
| $10^6$ | | | | | 12 | 12 | 7–11 | 8.7 |
| | $ID_{50}$ = 57 organisms | | | | $ID_{50}$ = 23 organisms | | | |

- As few as 10 organisms could cause a lesion; chancres developed a mean of 28.7 days later

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