HSV in Eczema’s Clothing

CHRISTOPHER R LINDHOLM MA, BS
MD CANDIDATE 2017
UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH
Case

20 year old G1P1 female 3 months post partum

PMH asthma, eczema, allergies (latex and environmental)
  ◦ Mild-persistent asthma: uses albuterol inhaler once every 2 days
    ◦ No oral or inhaled steroids

Chicken Pox as a child

Eczema worsened during pregnancy but was improving with topical triamcinolone until 2 weeks ago
  ◦ Skin biopsy showed spongiotic dermatitis
Case Continued: Course

Treated at 2 OSH’s in the preceding 3 days for 2 weeks of fever, nausea, vomiting, weakness and disseminated tender, vesicular non-pruritic rash
- 99.9 F, 82/40, 138 bpm, SpO2 92% on room air
- Pancytopenia, CXR patchy bilateral infiltrates after 2 days
- Tx: IV fluids, ceftriaxone, vancomycin, zosyn, clindamycin, acyclovir

Transferred to UWHC for persistent hypoxemia and specialty care
Physical Exam

99 F, 104/66, 104 bpm, 95% on 5L O2

Pulm: Bilateral wheezes

Skin: Thick erythematous plaques with punched out appearing bases and overlying yellow crusting
Vesicles coalescing into larger plaques. Some with hemorrhagic crusting

Similar appearance on forearms, hands and back
Differential Diagnosis

- Disseminated herpes zoster
- Disseminated herpes simplex
- Contact dermatitis with superinfection
- Other uncommon diseases
  - Hand, foot & mouth disease
  - Smallpox
  - Toxic epidermal necrolysis
  - Bullous pemphigoid
  - Pustular psoriasis

- WBC 3.8
  - 70% neutrophils
  - 13% bands
  - 13% lymphocytes
  - 3% monocytes
  - 1% eosinophils

- Hgb 7.5, Plt 112

- Other uncommon diseases
  - Hand, foot & mouth disease
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  - Bullous pemphigoid
  - Pustular psoriasis

- Tzanck smear positive for multinucleated giant cells
- HSV1 PCR (+)
- VZV PCR (-)
- HIV Ab nonreactive

Mackool, NEJM, 2012

https://commons.wikimedia.org/wiki/File%3ATzanck_test.png
Eczema Herpeticum (Kaposi’s Varicelliform Eruption)

- Disseminated skin infection most commonly overlying head, neck and trunk with fever
- Development of pain with pre-existing skin disorder and systemic symptoms
- Dermatological emergency

**Epidemiology**
- 10% mortality
- Develops in less than 3% of people with eczema
- Most commonly first exposure

**Risk Factors**
- Asthma & allergies
- Earlier onset of atopic dermatitis
- Immunocompromised states
  - Steroid use
- History of previous cutaneous staph aureus infections
- Postulated genetic defect in skin barrier

**Complications**
- Meningoencephalitis
- Pneumonia
- Ocular keratitis
- Hepatitis
- DIC

Leung, Antiviral Research, 2013
Lyons, Immuno & Allergy, 2015
Mackool, NEJM, 2012
Ferrari, Indian Derm Online Journal, 2015
# Eczema Herpeticum Diagnosis and Treatment

## Diagnosis
- **PCR**
- Tzanck Smear → not specific
  - HSV
  - VZV
  - CMV
- Viral culture
- Direct Fluorescent Antibody test

## Treatment
- IV Acyclovir
- Antibacterial therapy for superimposed infections
- Wound care
Case

IV Acyclovir 5 mg/kg Q8hours
2% mupirocin applied to lesions
Wound care
Lesions sloughed off revealing denuded skin
Discharged on oral valacyclovir for 14 days of total therapy
Summary points: Eczema Herpeticum

Rare disseminated skin infection with vesicles with punched out bases coalescing into plaques and viral illness symptoms

To prevent complications, timely and accurate diagnosis via PCR

Avoid delay in administration of antiviral medication. Treat empirically

http://www.skincareguide.ca/images/glossary/eczema_herpeticum.jpg
Thank you to:
-Dr. Sean O’Neill
-Dr. Bennet Vogelman

References


• https://commons.wikimedia.org/wiki/File%3ATzanck_test.png


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