Dermatology / Rashes Across the Lifespan

Wendy L. Wright, MS, RN, ARNP, FNP, FAANP
Adult/Family Nurse Practitioner
Owner – Wright & Associates Family Healthcare
Partner – Partners in Healthcare Education

Disclosures
- Grants: Novartis, Daiichi-Sankyo
- Speaker Bureau: Ortho-McNeil, Abbott, Novartis, GSK, Sanofi-Pasteur, DSI, Takeda, Merck

Objectives
- Upon completion of this lecture, the participant will:
  1. Identify various pediatric dermatology conditions
  2. Discuss those dermatology conditions that require an immediate referral
  3. Develop an appropriate plan for evaluation, treatment, and follow-up of the various lesions
Fifth’s Disease
(Erythema Infectiosum)

- Human Parvovirus B19
  - Occurs in epidemics
  - Occurs year round: Peak incidence is late winter and early spring
- Most common in individuals between 5-15 years of age
  - Period of communicability believed to be from exposure to outbreak of rash
  - Incubation period: 5-10 days
  - Can cause harm to pregnant women and individuals who are immunocompromised

Low grade temp, malaise, sore throat
- May occur but are less common

3 distinct phases
- Facial redness for up to 4 days
- Fishnet like rash within 2 days after facial redness
- Fever, itching, and petechiae
  - Petechiae stop abruptly at the wrists and ankles
    - Hands and feet only

Physical Examination Findings
- Low grade temperature
- Erythematous cheeks
  - Nontender and well-defined borders
- Netlike rash
  - Erythematous lesions with peripheral white rims
  - Rash remits and recurs over 2 week period
- Petechiae on hands and feet
Fifth’s Disease

Diagnosis/Plan
- Parvovirus IgM and IgG
- IgM = Miserable and is present in the blood from the onset up to 6 months
- IgG = Gone and is present beginning at day 8 of infection and lasts for a lifetime
- CBC = May show a decreased WBC count
Fifth’s Disease (Erythema Infectiosum)

- **Diagnosis/Plan**
  - Was contagious before rash appeared therefore, no isolation needed
  - Spread via respiratory droplets
  - Symptomatic treatment
  - Patient education—i.e. contagion, handwashing
  - Can cause aplastic crisis in individuals with hemolytic anemias
  - Concern regarding: miscarriage, fetal hydrops
  - Adults: arthralgias

Hand, Foot, and Mouth Disease (Coxsackie Virus)

- Caused by the coxsackie virus A16
- Most common in children
- 2-6 day incubation period
- Occurs most often in late summer-early fall
- **Symptoms**
  - Low grade fever, sore throat, and generalized malaise
  - Last for 1-2 days and precede the skin lesions
  - 20% of children will experience lymphadenopathy

Hand, Foot, and Mouth Disease (Coxsackie Virus)

- Physical Examination Findings
  - Oral lesions are usually the first to appear
    - 90% will have
  - Look like canker sores; yellow ulcers with red halos
  - Small and not too painful
  - Within 24 hours, lesions appear on the hands and feet
    - 3-7 mm, red, flat, macular lesions that rapidly become pale, white and oval with a surrounding red halo
    - Resolve within 7 days
Hand, Foot, and Mouth Disease
(Coxsackie Virus)

Physical Examination Findings
- Hand/feet lesions
  - As they evolve may evolve to form small thick gray vesicles on a red base
  - May feel like slivers or be itchy
**Hand, Foot, and Mouth Disease (Coxsackie Virus)**

**Plan**
- Diagnostic: None
- Therapeutic
  - Tylenol
  - Warm baths
  - Oragel or Benadryl/Maalox

**Hand, Foot, and Mouth Disease (Coxsackie Virus)**

**Plan**
- Educational
  - Very contagious (2d before -2 days after eruption begins)
  - Entire illness usually lasts from 2 days – 1 week
  - Reassurance
  - No scarring

**Pityriasis Rosea**

**Etiology**
- Common, benign skin eruption
- Etiology unknown but believed to be viral
- Small epidemics occur at frat houses and military bases
- Females more frequently affected
- 75% occur in individuals between 10 and 35; highest incidence: adolescents
- 2% have a recurrence
- Most common during winter months
Pityriasis Rosea

- Symptoms
  - Rash initially begins as a herald patch
  - Often mistaken for ringworm
  - 29% have a recent history of a viral infection
  - Asymptomatic, salmon colored, slightly itchy rash

- Signs
  - Prodrome of malaise, sore throat, and fever may precede
  - Herald patch: 2-10cm oval-round lesion appears first
  - Most common location is the trunk or proximal extremities
Pityriasis Rosea

- **Signs**
  - Eruptive phase
  - Small lesions appear over a period of 1-2 weeks
    - Fine, wrinkled scale
    - Symmetric
    - Along skin lines
    - Looks like a drooping pine tree
    - Few lesions-hundreds
    - Lesions are longest in horizontal dimension

- **Signs (continued)**
  - 7-14 days after the herald patch
  - Lesions are on the trunk and proximal extremities
  - Can also be on the face

- **Diagnosis**
  - History and physical examination

- **Plan**
  - Diagnostic
    - Can do a punch biopsy if etiology uncertain
    - Pathology is often nondiagnostic
    - Report: spongiosis and perivascular round cell infiltrate
  - Consider an RPR to rule-out syphilis
Pityriasis Rosea

- Plan
  - Therapeutic
    - Antihistamine
    - Topical steroids
    - Short course of steroids although, may not respond
    - Sun exposure
    - Moisturize
  - Educational
    - Benign condition that will resolve on own
      - May take 3 months to completely resolve
    - No known effects on the pregnant woman
    - Reassurance

Impetigo

- Contagious, superficial skin infection
- Caused by staphylococci or streptococci
  - Staph is the most common cause
  - Makes entrance through small cut or abrasion
  - Resides frequently in the nasopharynx
- Spread by contact
- More common in children, particularly on the nose, mouth, limbs
  - Self-limiting but if untreated may last weeks to months

Impetigo

- Symptoms:
  - Rash that will not go away
  - Begins as a small area and then increases in size
  - Yellow, crusted draining lesions
- Physical Examination Findings
  - Small vesicle that erupts and becomes yellow-brown
  - Initially, looks like an inner tube
  - Crust appears and if removed, is bright red and inflamed
Impetigo

- Physical Examination Findings
  - 2-8 cm in size

- Diagnosis
  - Diagnostic:
    - Culture – Must absolutely consider MRSA
  - Therapeutic:
    - Bactroban vs. Altabax
    - 1st generation cephalosporin vs. TMP/SMX
    - Let’s discuss MRSA

Impetigo

- Educational
  - Good handwashing and hygiene
  - No school/daycare for 24-48 hours
  - Wash sheets and pillowcases
  - Monitor for serious sequelae

CA - MRSA
**CA-MRSA**
- First identified in the 1940’s; first US case - 1968
  - CA-MRSA is distinctly different than the MRSA identified in hospitals
  - Most CA-MRSA are known as USA300 or USA400 whereas hospital infections are USA100, USA500
- Since 1990, the burden on society has increased substantially
- Most infections are located in the soft tissue and present as carbuncles, furuncles or abscesses

**CA-MRSA**
- First domestic cluster of cases identified in 1982 in Detroit, Michigan
  - IV drug users
- 1992, 2nd cluster among IV drug users

**CA-MRSA**

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Exposure to farm animals and even household pets may be a risk factor. Recurrent antimicrobial usage may also be a risk factor. Blacks are affected at greater rates than whites. Affects the very young and old, and males are affected more often than females. Whites disproportionately affect the very young and old. Most CA-MRSA infections are not usually severe or associated with hospital strains although the CA strains are believed to be more virulent than the hospital strains. However, current yearly estimates are: 95K invasive infections and 19K deaths.

Current estimates:
- 25 – 30% of people carry colonies of staphylococci in their noses
- < 2% are colonized with MRSA

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CA-MRSA

- Males are affected more often than females
- Affects the very young and old disproportionately
- Blacks are also affected at greater rates than whites
- Recurrent antimicrobial usage may be a risk factor
- Exposure to farm animals and even household pets

CA-MRSA

- Current estimates:
  - 25 – 30% of people carry colonies of staphylococci in their noses
  - < 2% are colonized with MRSA

CA-MRSA

- Most CA-MRSA infections are not usually severe or associated with hospital strains although the CA strains are believed to be more virulent than the hospital strains
- However, current yearly estimates are:
  - 95K invasive infections
  - 19K deaths
CA - MRSA

- meca gene
  - This is where the resistance originates with MRSA
  - PCN can’t bind at its target
- A lot of cross resistance to beta lactam antibiotics: PCN and cephalosporins particularly in the USA300 strain which is the CA-MRSA strain

CA-MRSA

- 2002 – handful of cases of the bacterium which is resistant to vancomycin

Treatment for Uncomplicated CA-MRSA

- No significant risk factors for adverse outcomes
- I&D is the treatment of choice; antibiotics may not be necessary
- For those in whom antibiotics should be considered:
  - Significant pain
  - Cellulitis
  - Rapid progression
  - Immunosuppression
  - Comorbidities
Statistics/Treatment in My Community

- 37% of staph infection at DHMC – MRSA
- Nationally, approximately 31% are MRSA
- CA-MRSA antibiotic susceptibility
  - 50% will be resistant to clindamycin
- Bactrim has best coverage/sensitivity: 96-98%
- Important for clinicians to obtain own antibiogram

Treatment of CA-MRSA

- Obtain culture
- Should consider local antibiograms in selection of antimicrobials
- Skin infections:
  - Consider beta-lactam (PCN or Cephalo) in an individual with mild infection and low rates of CA-MRSA in your community (generally thought of as < 10 – 15%)
- Rifampin – add on to other agents
- Tetracyclines (avoid under 8 years of age)
- Clindamycin (Monitor closely for resistance; D-Zone test)
- Linezolid
- Avoid fluoroquinolones (increasing resistance)

Gulboos, J.R. and Fordham, P.N. Evidence-Based management and Treatment of Outpatient Community-Associated MRSA. The Journal for Nurse Practitioners. 2010; vol 6(2):140-145
**Treatment and Eradication Strategies: Recurrent Infections**

- GOOD handwashing
- Treatment with Bactrim, clinda, TCN, Linezolid
  - Consider addition of rifampin
- Bathe with disinfectants
  - Hibiclens, phisodex, clorox bleach
- Utilize topical disinfectants
  - Purell
  - Mupirocin – seeing resistance

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**Carriage of CA-MRSA**

- Treatment recommended for individuals with recurrent infection
  - Consider ID consult before treatment
  - Mupirocin 2% each nostril two times daily x 5 days along with daily chlorhexidine 4% bath.
  - Alternative
    - Doxycycline 100 mg bid or TMP/SMX DS + rifampin 300 mg every 12 hours x 5 days

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**Another Option**

- Mupirocin nasal ointment plus bleach baths (one tablespoon of bleach in 1 quart of water)
  - Able to decolonize the skin
- Some strains of MRSA (USA300 MRSA clones) are resistant to mupirocin
More Natural Options

- Stay tuned...
  - Lemongrass essential oil has been shown to inhibit all MRSA colony growth
  - Tea tree oil has also been shown effective
  - French clay is also being studied

Additional Considerations

- CA - MRSA
  - Can colonize in animals; household pets
  - Consider animal treatment with recurrent disease
- Fomites
  - May be a source of CA - MRSA
  - Can live > 5 weeks on vinyl or block toys
  - Can live on towels for 7 – 10 days

Who Should Be Hospitalized?

- Two or more of the following:
  - Fever > 100.4
  - Wbc count: > 13,000/uL
  - Bands > 10%
  - Hand cellulitis
  - Facial cellulitis
  - Immunocompromise
  - Failing outpatient therapy
  - Age > 70 years of age
Contact Dermatitis: Rhus Dermatitis

- Rhus Dermatitis
  - Poison ivy, poison oak and poison sumac produce more cases of contact dermatitis than all other contactants combined
  - Occurs when contact is made between the leaf or internal parts of the roots and stem and the individual
  - Can occur when individual touches plant or an animal does and then touches human
  - Eruption can occur within 8 hours of the contact but may take up to 1 week to occur

Clinical Pearls

- Poison ivy is not spread by scratching
- No oleoresin is found in the vesicles and therefore, can not be spread by scratching
- Lesions will appear where initial contact with plant occurred
- Resin needed to be washed from skin within 15 minutes of exposure to decrease risk of condition

Clinical Presentation

- Clinical presentation
  - Characteristic linear appearing vesicles are likely to appear first
  - Often surrounded by erythema
  - Intensely itchy
  - Lesions often erupt for a period of 1 week and will last for up to 2 weeks
  - More extensive and widespread presentation can occur with animal exposures or burning of the plants / smoke exposure
Contact Dermatitis

Contact Dermatitis

Treatment

- Cool compresses 15 – 30 minutes three times daily
- Topical calamine or caladryl lotions
- Zanfel (OTC) wash – binds urushiol oil and removes from body/blisters
  – 75% decrease in itching and rash within 24 hours per package
- Colloidal oatmeal baths (AVEENO) once daily
**Treatment**
- Oral antihistamines
  - May wish to use sedating antihistamines at bedtime
- Topical corticosteroids
  - Avoid usage on the face
- Oral prednisone vs. injectable Kenalog or similar
  - 20 mg two times daily x 7 days
  - Kenalog 40 mg injection (IM)

**Follow-up**
- Monitor for secondary infections
- Impetigo
  - Staph vs. strep
  - MRSA
- Education:
  - Lesions will decrease over a 2 week period
  - May continue to erupt over 48 hours despite steroid administration
  - Not spreading lesions with rubbing or scratching

**Hot Tub Folliculitis**
- Inflammation of the hair follicle
- Caused by infection which occurs within 8 hours – 5 days of using contaminated hot tub or whirlpool
- Unfortunately, showering after exposure provides no protection
- Pseudomonas is the most common cause of hot tub folliculitis
- May also be caused by Staphylococcus, but unusual
  - MSSA or MRSA
Clinical Presentation

- One or more pustules may first appear
- Fever may or may not be present; usually low grade if it does occur
- Malaise and fatigue may accompany the outbreak
- Pustules may have wide rims of erythema

Hot Tub Folliculitis

Treatment

- Culture of lesions is likely warranted
- White vinegar wet compresses – 20 minutes on three x daily may provide significant benefit
- Oral Antibiotics
  - Ciprofloxacin is preferred agent if hot tub folliculitis is suspected due to pseudomonas coverage
- Discuss contagiousness
  - No evidence that it is spread person - person
Case Study

- S:TM is a 64-year-old Caucasian male who presents with
  a painful rash located on his right buttock.
  - Describes the rash as red and blistered
  - Has been present x 96 hours and is in for an evaluation because
    the pain is severe.
  - Pain is "9" on 0 – 10 scale. Has tried oral OTC medications
    without significant improvement. Pain is described as a burning
    sensation; deep in his buttock.
  - Denies precipitating factors. Pain began approx 2 days before the
    rash appeared. Denies fever, chills, new soaps, lotions, changes
    in medications.
- Medications: atorvastatin 40 mg 1 po qhs; amlodipine 5
  mg 1 po qhs; loratidine 10mg 1 po qd; aspirin 81 mg 1 po
  qam; various vitamins

Case Study

- Allergies: NKDA
- PMH: dyslipidemia; hypertension; obesity, allergic rhinitis
- Social history: 30 pack year history of cigarette smoking; none x 10 years;
  Machinist; happily married x 40+ years

Case Study

- O: T:97.8; P: 94; R:18; BP: 148/90
  - Skin: p/w/d; approximately 15-20 vesicles
    located on right buttock overlying an
    erythematous base; vesicles are clustered
    but without obvious pattern; no streaking,
    petecchiae. Few scattered vesicles on
    posterior aspect of right thigh; no lesions on
    left buttock or leg
  - Hips: FROM: no tenderness, erythema,
    masses
Case Study

- **O: PE continued**
  - Back: From: no tenderness, erythema, masses
  - Abdomen: Soft, large; + BS; no masses, tenderness, hsm
  - Neuro: intact including light touch, pain, vibratory to right lower extremity; heel, toe walking intact
    - + Allodynia
      - Clothing, light touch, cool object
    - + Hyperalgesia
      - Painful stimuli elicited significant pain

Examples of Herpes Zoster

Herpes Zoster
Herpes Zoster

- Highly contagious DNA virus which during the varicella infection (primary infection) gains access into the dorsal root ganglia
- Virus remains dormant for decades and is reactivated when an insult occurs to the individual's immune system
  - Examples: HIV, chemotherapy, illness, stress, corticosteroid usage

Incidence and Prevalence

- 3 million cases of chickenpox yearly
  - Disease of childhood
- 600,000 - 1 million cases of herpes zoster each year in the United States
  - Tends to be more of a disease of aging
  - By age 80, 20% of us will have zoster at some point in our lifetime
  - Men = Women

www.niaid.nih.gov/shingles/cq.htm
**Risk Factors**
- Increasing age (50-60 years and beyond)
- Varicella infection when < 2 years of age
- Immunosuppression
- Stress (controversial)
- Trauma
- Malignancies
  - 25% of patients with Hodgkin’s will develop zoster¹


**Goals of Treatment**
- Treat acute viral infection
  - Shorten course
  - Reduce lesions
- Treat acute pain
- Prevent complications
  - Postherpetic neuralgia

**Acute Treatment Options**
- Antiviral
  - Goal: Reduce viral reproduction
- Corticosteroids
  - Initially postulated that these reduce viral replication; recent studies have not found this to be true
  - However, they do decrease pain
- Pain Management
  - Topical agents
  - Anti-inflammatory agents
  - Narcotics
- Postherpetic neuralgia prevention
Antiviral Treatment Options

- Ideally, want to begin within the first 72 hours of the eruption as benefits may be reduced if started after that.
- These medications decrease duration of the rash and severity of the pain.
  - Studies vary as to how much these products actually reduce the incidence of post-herpetic neuralgia.

Controlled Trials of Antiviral Agents in Herpes Zoster

<table>
<thead>
<tr>
<th>% of patients with PHN at:</th>
<th>3 months</th>
<th>6 months</th>
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<tbody>
<tr>
<td>Acyclovir vs. Placebo</td>
<td>25% vs. 54%</td>
<td>15% vs. 35%</td>
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<tr>
<td>Valacyclovir vs. Acyclovir</td>
<td>31% vs. 38%</td>
<td>19.9% vs. 25.7%</td>
</tr>
<tr>
<td>Famciclovir vs. Placebo</td>
<td>34.9% vs. 49.2%</td>
<td>19.5% vs. 40.3%</td>
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Corticosteroids

- Often utilized despite mixed results in clinical trials.
- Prednisone, when used with acyclovir, in one study reduced pain associated with herpes zoster.
- Corticosteroids are currently recommended for individuals over 50 years of age with HZ.
- Dosage:
  - 30 mg bid x 7 days; 15 mg bid x 7 days; 7.5 mg bid x 7 days.
Pain

- Pain associated with herpes zoster can range from mild – severe
- Clinician must tailor pain medication options based upon individual presentation

Pain Management

- Topical Agents
  - Calamine lotion to lesions 2 – 3x/day
  - Betadine to lesions qd
  - Capsaicin cream once lesions crusted 3 – 5x/day
  - Topical lidocaine 5% patch for 12 hours at a time once lesions are crusted

Acute Pain Management

- Oral Agents
  - Acetaminophen
    - Has not been shown to be effective in trials
  - Ibuprofen or similar
    - Not likely to be effective with neuropathic pain
- Nerve Blocks
  - Have been shown to be effective for many individuals with severe pain in some trials; other trials - ineffective
And...the use of medications such as TCA’s, gabapentin, pregabalin, oxycodone and tramadol during the acute phase of HZ decrease pain but also may also reduce the risk of PHN.

Follow-up

- Monitor for secondary infections
- Monitor for evidence of postherpetic neuralgia
- Monitor for adverse impact on quality of life

Capsaicin Patch

- Capsaicin 8% (Qutenza) patch
- Indications: Post-herpetic neuralgia
  - Apply to most painful skin areas
  - May apply up to 4 patches at same time
  - Should wear gloves when applying
  - Should only be applied by a healthcare professional
  - Remains on x 60 minutes only
**Application Instructions**
- Draw circle around area to be covered
- Cleanse area first and thoroughly dry
- Pre-treat area with local anesthetic first
- Once anesthetized, remove anesthetic and cleanse

**Capsaicin**
- **Efficacy:**
  - Provides up to 12 weeks of reduced pain with a 1 hour patch application
- **Warnings**
  - May elevate BP; should monitor during treatment
  - Do not apply to open skin
- **Side effects**
  - Application site pain (42% vs. 21%)

**Erythema Chronicum Migrans**
- **Etiology**
  - Caused by a spirochete called *Borrelia Burgdorferi*
  - Transmitted by the bite of certain ticks (deer, white-footed mouse)
  - 1st cases were in 1975 in Lyme, Connecticut
  - Occurs in stages and affects many systems
  - Children more often affected than adults
Erythema Chronicum Migrans

- **Etiology**
  - Summer: highest incidence
  - 8000 cases/year in the US
  - 20 countries, 6 continents
  - Can be passed to fetus in utero

This is NOT a Lyme Bearing Tick

Lyme Bearing Tick
**Erythema Chronicum Migrans**

**Symptoms**
- 3-21 days after bite
- **Stage 1**
  - Rash (present in 72-80% of cases) - slightly itchy
  - Lasts 3-4 weeks
  - Mild flu like symptoms (50% of time)
  - Migratory joint pain
- **Stage 2**
  - Neurological and cardiac symptoms
- **Stage 3**
  - Arthritis, chronic neurological symptoms
  - Make take years to get to this stage

**Erythema Chronicum Migrans**

**Signs**
- **Rash: Stage 1**
  - Begins as a papule at the site of the bite
  - Flat, blanches with pressure
  - Expands to form a ring of central clearing
  - No scaling
  - Slightly tender
- **Arthralgias: Stage 2**
  - Asymmetric joint erythema, warmth, edema
  - Knee is most common location

**Erythema Migrans**
Erythema Migrans

Erythema Chronicum Migrans

- Signs
  - Systemic symptoms: Stage 3
    - Facial palsy
    - Meningitis
    - Carditis

- Diagnosis
  - R/O Ringworm (Tinea Corporis)

Erythema Chronicum Migrans

- Plan
  - Diagnostic:
    - Sed rate: normal until stage 2
    - Lyme Titer
      - IGM: Appears first: 3-6 weeks after infection begins
      - IGG: Positive in blood for 16 months
      - High rate of false negatives early in the disease
      - Lyme Western Blot
**Erythema Chronicum Migrans**

- **Plan**
  - Therapeutic
    - Amoxicillin 500mg tid x 21 days
    - Doxycycline 100 mg 1 po bid x 21 days
    - If in endemic area and tick is partially engorged, may treat with doxycycline 200 mg x 1 dose with food

**Educational**

- Half of the patients continue to experience h/a, arthralgias and fatigue after treatment
- Tick repellant
- Light clothing
- Check children and pets and remove promptly
- Closed toe shoes
- Comb hair

**Necrotizing Fasciitis**

- Severe, deep, necrotizing infection
- Involves subcutaneous tissue down into the muscles
- Spreads rapidly
- Caused by Group A Beta Hemolytic Strep, Staph, Pseudomonas, E Coli
- Mortality: 8-70% depending upon organism and rapidity of treatment
- Disfigurement common
Necrotizing Fasciitis

- Symptoms
  - Usually occurs after surgery, traumatic wounds, injection sites, cutaneous sores
  - Generalized body aches, fever, irritability
  - Key: Red area of skin that is severely painful (It is out of proportion to findings)
  - Leg is most common location

- Physical Examination Findings
  - 1st appears as local area of redness that looks like cellulitis

Necrotizing Fasciitis

- Physical Examination Findings
  - Tender
  - Bullae with purulent center which ruptures quickly
  - Black eschar appears and the pain decreases
  - Systemic symptoms begin

Bullae: Below these lesions is necrotic tissue
Necrotizing Fasciitis

- Plan
  - Diagnosis: Culture of wounds, blood cultures, biopsy of area, CBC with differential, urinalysis
  - Therapeutic: HOSPITAL ADMISSION
  - Educational: Good wound hygiene

Stevens-Johnson Syndrome

- Distinct, acute hypersensitivity syndrome
- Many causes: Drugs, bacteria, viruses, foods, immunizations
- Also known as Bullous Erythema Multiforme
- Stevens-Johnson Syndrome is thought to represent the most severe of the erythema multiforme spectrum
- Two stages
  - Prodrome which lasts 1-14 days
  - 2nd stage: mucosal involvement where at least 2 mucosal surfaces are involved (oral, conjunctival, urethral)

Stevens-Johnson Syndrome

- Mortality: 5-25%
- Long-term complications are common
- Face almost always involved and mouth always involved
- Entire course: 3-4 weeks
- Most common in children aged 2-10
Stevens-Johnson Syndrome

- **Symptoms**
  - Constitutional symptoms such as fever, headache, sore throat, nausea, vomiting, chest pain, and cough
- **Physical Examination Findings**
  - Vesicles that are extensive and hemorrhagic
  - Bullae rupture leaving ulcerations which are covered with membranes
  - Leave large areas of necrosis and skin peels
  - Lesions on the conjunctiva

Erythema Multiforme

- Image of Erythema Multiforme showing a skin lesion

Erythema Multiforme

- Image of Erythema Multiforme showing a skin lesion
Stevens-Johnson Syndrome

- Plan
  - Must rule-out staphylococcal scalded skin syndrome
  - Therapeutic: HOSPITALIZATION with early ophthalmological evaluation
  - Steroids are controversial
  - Others in family may be genetically susceptible
  - Never take these medications again
Diagnosis? Linked with ____________?

Dermatofibroma

Squamous Cell Carcinoma
Seborrheic Keratosis

Basal Cell Carcinoma

Malignant Melanoma
Squamous Cell Carcinoma

Molluscum Contagiosum

Key References

Thank You!

I Would Be Happy To Entertain Any Questions

Wendy L. Wright, MS, RN, ARNP, FNP, FAANP

603 472-7097 (W)
603 472-2597(F)
email: WendyARNP@aol.com