MYTHBUSTERS: Dermatology Style

Rebecca Flynn, APRN, CPNP
Children’s Mercy Department of Dermatology

Myth #1

- Imiquimod (Aldara) 5% cream when applied 3 x weekly to affected areas will accelerate resolution of molluscum contagiosum.

Molluscum Contagiosum
Molluscum Contagiosum - Epidemiology

- Common viral disease of childhood
- Caused by the molluscum contagiosum virus (MCV), a poxvirus
- Benign and self-limited
- Spontaneous resolution within 6 months to several years

Molluscum Contagiosum - Epidemiology

- Incubation period ranges from 2 weeks to 6 months
- Transmission occurs from skin to skin contact, fomites or autoinoculation
- Clothing, bath sponges, towels, gymnastics equipment, swimming pools, public baths
- Increased susceptibility: Atopic dermatitis or immunodeficiency

Molluscum Contagiosum - Identification

- 1-5 mm smooth, firm, dome-shaped papules with central umbilication – may need magnification to improve visualization
- Pearly white, pink, or skin colored
- Average number of papules is 10-20, range from 1 to several hundred
- Can affect any part of the skin, but most common on trunk, antecubital and popliteal fossae, axillae
- Inflammation of lesions usually precedes resolution
Molluscum Dermatitis

Imiquimod 5% cream and Molluscum Contagiosum

- FDA Clinical Executive Summary 9/3/2008:
  - Limitations to use: Aldara Cream has been evaluated in children ages 2 to 12 years with molluscum contagiosum and these studies failed to demonstrate efficacy.
  - Two unpublished studies failing to demonstrate efficacy

- Aldara Package labeling:


Myth #1

- Imiquimod (Aldara) 5% cream when applied 3 x weekly to affected areas will accelerate resolution of molluscum

- BUSTED
Molluscum Contagiosum

- **Treatment Options**
  - Watchful waiting
  - Cantharadin (Cantharone) topical treatment
    - Blistering agent
  - Cryotherapy
  - Keratolytics (i.e., Topical Retinoid)

What is Cantharidin (cantharone)?

- Originally derived from the blister beetle; now synthetically derived
-Causes blistering of the skin (epidermal layer) – this leads to extrusion of the molluscum body and resolution of lesion
- Retrospective study by Silverberg et al:
  - 90% of 300 patients cleared and 8% improved in an average of 2.1 treatments

Myth #2

- Using Duct tape will make a wart go away.
Verruca Vulgaris (Wart)

- Caused by human papillomavirus (HPV)
- Over 150 distinct subtypes of HPV
- The virus infects squamous epithelial cells most commonly in acral areas
- Occur most commonly in children and young adults, peaking between 12-16 years of age
- Warts account for 8% of visits to dermatologists

Verruca Vulgaris

- Predisposing conditions for more extensive warts or recalcitrant warts:
  - Atopic Dermatitis
  - Conditions with decreased cell-mediated immunity (immunocompromised hosts)
- Transmission of HPV:
  - Skin to skin contact
  - Can transmit from people with subclinical infection
  - Inoculation more common in sites of trauma or macerated skin
  - Incubation period usually 2-6 months
  - Latent infection can occur in normal skin
Verruca Vulgaris

- **Treatment**
  - Topical - Salicyclic Acid 40% (Wart Stick)
  - Cryotherapy
  - Candida Antigen Injections

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**Myth #2**

- Using Duct tape will make a wart go away.


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**Myth #3**

- Eating Pizza and sugary foods will make my acne worse.
Acne Vulgaris

- **Etiology**
  - Increased Sebum
  - Sebaceous gland
  - Comedones: open/ closed
  - Bacteria: P. Acnes
    - Inflammatory papules/ nodules

Acne Vulgaris-Treatment

- 1st Line Treatment: Benzoyl Peroxide Wash (OTC)
  - Antimicrobial & reduces bacterial resistance
- Retinoid: Comedonal Acne
  - Targets comedones
  - Mainstay of treatment
  - Causes Dryness, irritation
- Antibiotic: Inflammatory Acne
  - Topical
    - Benzamycin, BenzaClin, Clindamycin Lotion
    - Requires BPO agent to decrease bacterial resistance
  - Oral
    - Doxycycline, Minocycline, Azithromycin
    - *Sun Sensitizing*
Acne Vulgaris-Treatment

- Severe Cystic Acne Vulgaris
  - Isotretinoin (formerly Accutane)
  - Pregnancy Category X
  - Requires iPledge Program
  - Highly Recommend management by Dermatologist
  - Potential AE:
    - Dryness
    - Elevated Liver Enzymes
    - Hyperlipidemia
    - Depression/ Suicide
    - Inflammatory Bowel Disease

Acne Vulgaris

- Ideal: 50% improvement within 2-3 months of new therapy
- Prevent Acne Scarring

Acne Vulgaris - Diet

- Low Glycemic Index Diet
  - Multiple randomized controlled trials to support low glycemic index diet will aid in improving acne.
  - Recommend treatment

- Decreased dairy products
  - Well described biochemical and physiologic mechanism support milk ingestion and formation of acne.
  - No randomized controlled trials currently. Promising data!
  - Cannot currently recommend treatment.

Myth #3

- Eating pizza and sugary foods will make my acne worse.

Confirmed

Myth #4

- Patient with Hand, Foot and Mouth disease will only have lesions on their hands, feet and mouth.
Hand foot and mouth

- Coxsackie Virus
- Presents with fever, malaise, poor appetite, ST x 1-2 days
- Vesicles or erosions begin as small red spots in palate, tongue, uvula, gingiva and tonsils. Advance to ulcers, painful.
- Small red spots, some with blisters on palms, soles, hands, feet, or random other locations
- Transmitted through nose and throat secretions, blister fluid, and feces.
- Supportive treatment

Hand, Foot, and Mouth

Hand Food Mouth Differential DX

CULTURE!
Eczema Herpeticum

- Herpes Simplex Virus- HSV superimposed on skin
  - HSV-1 or HSV-2
- Risk for development: Skin with poor barrier
  - Atopic Dermatitis
- History:
  - Close contact with recent cold sore
  - Rapid spreading of lesions
  - Fever, malaise, irritability, lymphadenopathy

Skin findings:
- Vesicles
- Erosions
- Pustules
- Crust
- PAIN!
Eczema Herpeticum

- Treatment
  - Viral Culture
  - Bacterial Culture - optional
  - Oral acyclovir 40-80 mg/kg/day divided 3-4 x daily
  - IV acyclovir 10mg/kg/dose q8h
  - Get an ophthalmology consult if near the eyes
  - Do not use topical steroids on suspected HSV
  - Topical ointment Emollients - Vaseline or Aquaphor
  - Consult Dermatology

Myth #4

- Patients with Hand, Foot and Mouth disease will only have lesions on the hands, feet, and mouth. **Busted**

Myth #5

- Moisturizing my child with emollient will help prevent eczema from forming.
Atopic Dermatitis

- Dry, rough, itchy skin
- Waxes and Wanes
- Begins <2 years of age
- Commonly exists with atopy
  - Allergies, Asthma, Atopic Dermatitis
  - Strong Family History
- Responds to Moisture and Topical Steroids
- Distribution of dermatitis
  - Infant: face, scalp, trunk, back, elbows, knees
  - Child: neck, back, pop fossa, ankles/feet
  - Adult: Hands, feet

Atopic Dermatitis - Differential Dx

Atopic Dermatitis - Psoriasis

Scabies - Atopic Dermatitis
## Atopic Dermatitis- Treatment

- **Sensitive Products**
  - Dye-free, Scent-free products: soap, laundry detergent, dryer sheet

- **Moisture**
  - Bland ointment/cream emollient
    - Vaseline ointment, Aquaphor ointment
    - Vanicream, Cetaphil cream
    - Daily bathing

- **Topical Steroid - BID Ointments!**
  - Mild - Hydrocortisone 2.5% ointment, Desonide ointment
  - Moderate
  - Strong

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## Atopic Dermatitis- Treatment

- **Antihistamines**
  - Daily non-sedating - Zyrtec
    - As needed for Allergy control to prevent flares
  - Sedation effect to aid sleep
    - Benadryl
    - Hydroxyzine
    - Doxepin

- **Bleach Baths**
  - ¼ cup unscented bleach to ½ tub of water

- **Topical Antibiotics**
  - Mupirocin 2% ointment

- **Wet Wraps**

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## Atopic Dermatitis- Wet Wraps

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Emollient Enhancement of Skin Barrier

- Atopic Dermatitis –
  - Disrupted skin barrier (epidermal defect in filaggrin)
  - Influx of allergens and irritants into epidermis
  - Inflammatory response

- Moisturization to protect skin barrier
  - Prevent skin dryness and cracking
  - Reduce introduction of allergen and irritant


Emollient Enhancement of Skin Barrier

- 2014 Study
  - Daily emollient therapy from birth significantly reduced AD at 6 months (43% vs. 22%) in population with family history of atopy.
  - Emollients
    - Cetaphil Cream
    - Aquaphor ointment
    - Sunflower seed oil
  - Increased family history- Emollients!


Myth #5

- Moisturizing my child with emollients will help prevent eczema from forming.

Confirmed
Myth #6

The best products I can use on my newborn with sensitive skin is Dreft laundry detergent and Johnson & Johnson head to toe body wash.

Atopic Dermatitis Guidelines

- Dye-free, fragrance-free detergent, fabric softener, dryer sheets
  - All Free & Clear, Tide Free & Clear, Purex Free & Clear
- Mild fragrance-free cleanser
  - Dove Sensitive Skin, Cetaphil Cleanser, Vanicream cleansing bar
- Dye-free, fragrance-free emollients
  - Aquaphor ointment, Vaseline ointment, Vaniply ointment
  - Vanicream, Cetaphil cream, Cereve cream

Busted
References


References