Practice Gaps in Pediatric Dermatology

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DISCLOSURE

Relevant Financial Relationships
None

Off-Label Usage
Atopic derm: Antihistamines, oral antibiotics, bleach
Psoriasis: all treatments discussed except Vit D analogues, NB-UVB, MTX
Hemangiomas: all treatments discussed

Other
I co-authored the AAD atopic derm guidelines
I co-authored the AAD psoriasis guidelines
I am Derm Co-Chair of the National Eczema Association CUBE-C project
Regeneron (psoriasis): no compensation
Learning Objectives

- Review the newest suggested management of atopic dermatitis, psoriasis and hemangiomases
- Discuss practice gaps that still exist
- Appreciate what is up-and-coming for these diseases
- Learn something
- Have fun!
Outline

- Brief review of disease
- Current dogma for management
- Guidelines you need to know about
- Practice Gaps
- Future state
Atopic Dermatitis
Atopic Dermatitis

- “Eczema”
- Atopic disease
- Inflammatory destruction of epidermis
- Predispose to infection and scarring
AAD guidelines

- 4 sections, 2014 JAAD
- Planned renewal every 5 years
- SORT process: evidence based
- Practice gaps discussed and highlighted
Practice Gap: Testing

- NONE needed
- No lab test is helpful or predictive over time
- Happy patient
- Happy family
- Cost containment
Practice Gap: Bathing

- Bathing is helpful
- Only additive known to be effective is bleach
- Bleach shown to decrease colonization of microbes
- Inexpensive
- Readily available
Practice Gap: Steroid application

- Once daily application is as effective as BID application

- No randomized trials found BID use superior!

- Increased compliance
- Increased safety
- Less expensive
Practice Gap: Antibiotics

- Topical antibiotic use **NOT** recommended
  - Mostly addressing colonization
  - Increased allergic contact risk
  - MRSA growth rates are decreased in AD patients

- Systemic antibiotic use **recommended only with proof of infection**
  - Clinical: pustules, warmth, foul exudate
  - Lab: culture swab with sensitivities
Practice Gap: Antihistamines

- **Topical antihistamine use NOT recommended**
  - Increased allergic contact risk
  - Low efficacy

- **Systemic antihistamine use recommended only with allergic rhinoconjunctivitis**
  - Does not alter disease course
  - Prolonged use alters school performance
Practice Gap: Prevention

- Sensitive skin care regimen should continue
- Consistent emollient application should continue
- Application of steroid to consistently affected areas two times a week between eruptions is okay (and perhaps preventative)
Practice Gap: Education

- Most atopic derm appointments are TOO SHORT
- Intense education of the patient and family is imperative
- Repetition important
- Realistic expectations should be set
Coalition United for Better Eczema Care (CUBE-C)

- 2017-2018
- National Eczema Association
- Multidisciplinary atopic dermatitis education module
- Focus on whole patient
- Advocate for best practices
- Influence quality metrics
Pediatric Psoriasis
Psoriasis

- Multisystem inflammatory disorder
- Hyperproliferation of the epidermis
- Onset and/or flares with stressor
- 1% of children, 3% of adults
- 1/3 of cases begin in childhood
AAD guidelines

- 6 sections, 2019-2020 JAAD
- Planned renewal every 5 years
- SORT process: evidence based
- Practice gaps discussed and highlighted
Practice Gap: Comorbidities

- Psoriatic arthritis (0.7%)
  - Uveitis only if have PsA

- Obesity
  - Usually precedes psoriasis
  - Higher risk in AA, Hispanic patients
  - Higher risk of diabetes

- Dyslipidemia
  - Follow AAP screening guidelines

- Hypertension
  - Follow AAP screening guidelines
Practice Gap: Mental Health

- Higher risk of depression and anxiety
- Higher rate of psych medication use
- Concern of social isolation, bullying, school truancy
- Screen for risk behaviors (substance abuse)
- Potentially enhanced if other comorbidities present (obesity)
Practice Gap: Topical Treatment

- Topical steroids are off-label, but first line use
  - Can use potential topical steroids for brief periods

- Vit D analogues are on-label and first line use

- TCIs are off-label and first line

- Others are effective also:
  - Tazarotene
  - Anthralin
  - Tar
Practice Gap: Advanced Treatment

- **NB-UVB**: first line for moderate to severe disease or guttate disease
  - Good for pustular psoriasis
  - No liver biopsy

- **MTX**: most common drug used
  - Good for concomitant PsA
  - Good for pustular psoriasis

- **Cyclosporine**
  - Good for short-term burst therapy
  - Good for pustular psoriasis

- **Acitretin**
  - Can use with phototherapy
  - Good for pustular psoriasis
Hemangiomas
Infantile Hemangioma

- Accessory arterial growth
- Standard maturation process

Exam: red patch, plaque or nodule with reticulation

GLUT-1 positive

Etiology unclear
  - Placental nidus?
  - Reactive response to low O2?
Why Intervene?

- Impaired organ function
  - Airway, vision, hearing, stooling

- Local destruction
  - Nose, ear, digit

- Ulceration
  - PAINFUL!, infection, scars

- Cosmesis
Practice Gap #1: Location, location, location!
PHACE syndrome

- Posterior fossa malformation
  - Esp Dandy Walker
- Hemangioma
  - Facial (beard area: airway!)
  - Segmental
- Arterial anomalies
  - Esp cerebral artery system
- Cardiac anomalies/Coarct
- Eye anomalies

- Cause unknown
- Heavy female predominance
- Can have delay in complications
PELVIS/SACRAL syndrome

- Perineal hemangioma
- External genitalia malformation
- Lipomyelomeningocele
- Vesicorenal abnormalities
- Imperforate anus
- Skin tag
- Spinal dysraphism
- Anogenital anomalies
- Cutaneous anomalies
- Renal/urologic anomalies
- Angioma of
- Lumbosacral location
Practice Gap #2: Ulceration
General Principles for Ulceration

- General wound care
  - clean, moist, covered

- Topical lidocaine gel

- Topical metronidazole
Pulsed Dye Laser

- **Therapeutic uses**
  - Ulcerated tissue
    - Works very well!
    - Weekly, 1-3 visits
  - Leaky blebs

- **Optional uses**
  - Flat hemangiommas
  - Residual telangiectasia
Practice Gap #3: Proactive prevention is better
Topical Timolol

- Small, flat hemangiomas
  - with potential for problems
  - for cosmesis
  - for worried parents

- Twice daily use
  - not FDA approved
  - cheap, easy

- Several weeks for results
Conclusion

- Atopic dermatitis, psoriasis and hemangiomas are common reasons to visit dermatology practices.

- These disorders can cause significant burden for patients.

- Treatment options are available.

- New treatments are exciting.

- Best practice guidelines exist.

- More knowledge is needed.
Thank You