Pruritus in Children

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Learning Objectives

• Recognize that measuring itch is different in children than adults
• Articulate the mental comorbidities of itch in children
• Appreciate the impact of itch on parents
Children are not little Adults

- Prevalence of pruritus studied in adults
  - 1 US veterans with 1 VA visit: 30% of all queried
  - 2 NAMCS coded visits: 1% all outpatient visits

- Prevalence of pruritus in children is unknown

- Prevalence of skin conditions known to itch
  - Atopic dermatitis: 5-20%³
  - Chronic Idiopathic urticaria: 1.8%⁴

¹ Carr JAMA-Derm 2014 Jun;150(6):613-20
² Shive JAAD 2013; 69(4):550-6
⁴ Lee Allergy Asthma Immunol Res, 2017. 9(3): 21209
Measurement of itch PRO is different in children

- Cognitive abilities are different in children
- QoL Issues are different
- Parental proxy
Pruritus Severity Rating

Usual scales may be cognitively challenging for kids

Pruritus Severity Rating
May need cartoon annotation to give meaning
ItchyQoL™ (Adults)

Symptoms

- Bleeds
- Hurts
- Burns/stings
- Scar
- Scratch
- Temp aggravation

Function

- Spend money
- Hard to work
- Interactions with others
- Sleep
- Difficult to concentrate
- Clothes
- Buy special soaps, lotions

Emotion

- Frustrated
- Embarrassed
- Drives me crazy
- Angry
- Depressed/sad
- Worry what other people think of me
- Worry last forever
- Self conscious
- Personality changed
ItchyQoL: Pediatric version

• Issues for children not the same as adults
• Pediatric ItchyQoL
  – KidsItchyQoL (6-7 yo)
    • Cartoon annotated
  – TweenItchyQoL (8-17 yo)
Proxies are used for kids itch severity

- Parents are used as proxies in trials
- Providers will “guestimate” severity
- Children’s answers are not trusted
Parental experience matters

With each 1-point increase in the difference in ItchyQuant score

• Parents were 1.25 times less likely to have experience with chronic pruritus

• Children were 0.26 times more likely to be older
Impact of Itch in Children

- Comorbidities
- Gender disparities
- Parents and caregivers affected
Itch and Suicide

- 4,744 adolescents
  - Participation rate was 80%.
- Prevalence of suicidal ideation
  - 8.4% in NO itch
  - 21.1% in severe itch

Itch and Suicide

• Multivariate model
  – Odds ratio 3.0, 95% CI: 2.1-4.2
  – Comparable odds between pain & suicidal ideation (OR: 3.8, 95% CI 2.6-5.7)
  – Similar in girls and boys
Itch and ADHD

• Itching may cause inattention
• Hyperactivity may exacerbate itch
• Data have been cross-sectional
• Longitudinal data: Improving itch correlates with decrease of ADHD symptoms
Gender difference

Girls reported impact as sig more severe in 12 of 35 items compared to boys
Parental impact

- Atopic dermatitis is itchy
- Sleep disturbance
- Social effects (poor social support, decreased employment outside the home, stress about parenting, and difficulty with discipline)
- Emotions (guilt, blame, worry, and frustration)


**Effects of atopic dermatitis on young American children and their families.**

Chamlin SL, Frieden IJ, Williams ML, Chren MM.
Conclusions

- Measuring itch is different in children than adults
  - Cartoon annotated scales
  - Issues are different
- Mental comorbidities of itch in children
  - Suicide and ADHD
- Impact of itch on parents can be profound