What's New In Ped Derm, & What is Connected To Obesity

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Objectives
1. Recognize neonatally the at risk infantile hemangiomas deserving propranolol consideration
2. Know the new medications for atopic dermatitis
3. Identify cutaneous diseases linked to obesity

What's New in Ped Derm
1. Infantile Hemangiomas we should treat
2. Atopic Dermatitis (AD)
   - Medications
   - Evaluation
3. Skin Disease Assoc with Obesity

Infantile Hemangiomas (IH)
- Vascular Anomalies: Proliferations
- Most common benign tumor of infancy
- Affect 3-10% infants under age 1
- Differential: Vascular Malformations
- Treatment for @ risk IH: Propranolol
Propranolol for Severe Hemangiomas of Infancy


A Randomized, Controlled Trial of Oral Propranolol in Infantile Hemangioma


ABSTRACT

A Randomized, Controlled Trial of Oral Propranolol in Infantile Hemangioma


Background: Oral propranolol has been used to treat complicated infantile hemangiomas, although data from randomized, controlled trials to define its use are limited.

We performed a multicenter, randomized, double-blind, placebo, phase 2–3 trial involving the efficacy and safety of a pediatric-specific oral propranolol solution in infants 1 to 18 months of age with proliferative or disfiguring infantile hemangiomas requiring systemic therapy. Sulfates were randomly assigned to receive placebo or one of five propranolol regimens (3 to 9 mg/kg per day for 1 to 6 months). A post-hoc intent-to-treat analysis was conducted to identify the regimen necessary for the final efficacy analysis. The primary end point was p<0.001 for

IH Growth

Propranolol for IH

IH Growth

Prolif

Growth

1 week      6-9 mon        18 mon       5 yrs

3m-80%
Refer/Treat Early

- 5-8wk corrected age
- Problematic or At Risk IH
  - Location/size- Deforming or Functional prob (facial, eye, nasal tip, ear, neck)
  - Ulceration (mucous membranes/folds/large)
  - Multiple (internal)
  - Social impact

Referral/Caution Needed

Multiple
- Risk internal ones, liver-> hi output failure
- Large plaques on face
  - PHACES-> CNS AV/CV/Eye problems
- Lumbar/sacral
  - Risk for Spinal Dysraphism
  - Associated Risk for GU/Renal Problems

Crisaborole (Eucrisa)

- FDA- Topical ointment approved Dec 2016
- Intercedes with the immune cascade
- Provided some relief with less severe disease
- No serious side effects (stinging- most common)
**Dupilumab (Dupixenet)- “Blockbuster” & “Gamechanger”**

A new injectable biological for AD
- *Lancet* 10/15 for AD in adults
- *Lancet* 7/16 for uncontrolled Adult Asthma
- FDA approval for AD in children- 3/17

Modulates immune dysfunction present in AD-
- (IL 4 & IL 13 inhib)

Insurances determining coverage
- Costs est. >$37K/year

**NIH Panel Guidelines 1/17**

Early Peanut Introduction for High-Risk Infants
- (expose as young as 4 months)

**Peanut Extract Skin prick testing defines 3 likelihood categories of peanut allergy**

- Low Risk (wheal 2 mm or less)- Panel rec: Peanut (PN) introduction
- Med Risk (wheal 3-7mm wheal)- Panel rec: Supervised PN feed/oral challenge
- High Risk (wheal 8 mm or more)- Panel rec: Referral to specialist

**Or do Peanut IgE**

- Peanut IgE levels <0.35 kUA/L: low likelihood of peanut sensitivity. Panel rec: Intro peanuts
- Peanut IgE >0.35: Panel rec- Referral

On Diet: Insufficient evidence to rec any specific dietary measures to prevent AD

"Breastfeeding for the first 6 mon of life is encouraged for its other benefits for the infant and mother (e.g. bonding, passive immunity)."

"Most studies of dietary modification of maternal or infant diet do not show a protective effect, although recently published studies of hydrolyzed formula & probiotic supplementation suggest that these approaches could have a beneficial effect in preventing disease development in some high-risk infants who are not exclusively breastfed."

"While patients with AD are often sensitized to certain foods, the timing of solid food intro or withholding of allergenic foods does not appear to alter the risk for AD."


Psoriasis

Co-morbid conditions in adults:

- Obesity
- Depression
- Smoking
- HTN
- Heart Disease

The Heartbreak of Psoriasis

Special to the BDN

by Janice L. Pelletier

Posted Aug. 21, 2013

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Psoriasis

- Chronic
- Inflammatory
- Common: 1-3% population
- Red, scaly plaques, well demarcated
- Treatment: topical & Systemic Therapies


DALYs: Overall Health Loss

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\text{DALYs (disability-adjusted life yrs) = YLLs (yrs life lost) + YLDs yrs lived w/ disability)}
\]

In other words -> A Measure of Disease Burden
Obesity, Hyperlipidemia, HTN, Insulin Resistance, & Metabolic Syndrome

More prevalent in kids with psoriasis.

Rate of comorbidities in kids with psoriasis is 2x that without psoriasis

Globally, children with psoriasis have excess adiposity regardless of psoriasis severity

Multicenter study of children with psoriasis suggested a greater association with obesity in childhood-onset versus adult-onset psoriasis.

How did we do with counseling obesity risk factors?

- Bad

Although BMI was collected for all pts, counseling on high BMI as a risk factor for psoriasis and about the harms of high childhood BMI in general occurred at low rates (10% and 30%, respectively)
What’s New in Ped Derm

1. IH @ Risk → Propranolol. Approved 5wk
2. Atopic Dermatitis (AD)
   - Medications
     → Crisabole (Eucrista)
     → Dupilumab (Dupixenet)
   - Allergy evaluation < 6mon for At Risk Infants
3. Psoriasis → Assoc with Obesity; & so is AD

Thank you
For your kind attention