Integrative Approaches to Acne and Diaper Rash

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The Holistic Pediatrician

Authentic Healing
By the end of this session, participants will be able to

• Describe the role of diet in acne
• Identify one herb for topical use in acne
• Describe two keys to reducing diaper rash
• Caution parents against two natural, yet risky treatments for diaper rash
Acne case

- 17 yo Gerald works at fast food restaurant to earn college money
- Acne for 3-4 years, getting worse?
- Drug store “cream” made his face red
- Mom advised him to stop fries
- Friend suggested antibiotics
Acne epidemiology

- 70% - 90% of teens (not in magazines or movies)
- 10% of adults
- Males
- Stress
4 Principle Acne Players

- **Sebum** lubricates hair shafts (mixed with dead skin cells, forms plug along hair shaft); stress increases sebum production
- **Hormones** (testosterone and progesterone) increase sebum production
- **Bacteria** break down sebum plugs into irritating fatty acids that attract WBCs
- Immune system – inflammation
- (NOT dirt)
#1 Avoid Acne Aggravators

- More sebum (*hormones, stress, obesity*)
- More fatty acids (*diet and stress*)
- Blocked hair shafts from *cosmetics, oil, dirt*
- Mechanical *irritation*
- Activated immune system from *stress*
- High *bacteria* levels
- Certain *meds* (iodine, isoniazid, lithium, phenytoin, prednisone)
## Framework for Therapies

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<td>YES</td>
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<td><strong>Use/Recommend</strong> (2+ RCTs)</td>
<td>Tolerate</td>
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<td>Monitor Closely</td>
<td>Advise Against</td>
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Avoid oily or irritating cosmetics

- Lanolin
- PEG15 or PEG75
- Cocoa butter or coconut oil
- Isopropyl anything
- Lauric acid or laureth-4
- Monostearate
- Myristyl myristate
- Oleyl alcohol
- Stearath 10
- Butyl stearate
## Framework for Therapies: ACNE

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Healthy Habits, Healthy Habitat
Eat well

• Avoid animal fat, particularly cow milk and cheese, even skim milk (Hoehn, 1966; Adebamowo, 2008)
• Avoid high glycemic index foods
• Eliminate suspected trigger foods (Grossi, 2014)

• Eat a healthy Mediterranean diet
• Eat whole foods, low glycemic index (Reynolds, 2010; Mahmoud, 2014)
Manage Stress

• Practice relaxation technique at least 5/7 days weekly
  – Biofeedback
  – Guided imagery/hypnosis
  – Music that lowers stress
  – Meditation
  – Tai Chi, Yoga
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Light and Soap: healthy habitat

- Sunshine – pros and cons (tropical acne)
- Light therapy (Hamilton, 2009)
- Antibacterial soaps containing chlorhexidine (wash after work and before bed)
Supplements

• **Avoid**
  - Excessive B12
  - Iodine (watch out for “healthy” kelp and sushi)

• **Proven helpful**
  - None

• **Uncertain help**
  - Vitamin A (avoid >10,000 IU daily)
  - Vitamin B6
  - Selenium
  - Zinc
  - Omega-3 and 6 fatty acids
  - Lactoferrin
  Small studies require replication in larger samples
Herbal remedies

- **Green tea**, 2% topically as part of skin lotion, significantly decreased acne severity (Elsaie, 2009)
- **Resveratrol** skin gel, 50% improvement in Italian study (Fabbrocini, 2011)
- Traditional, but little data: calendula, catnip, chamomile, comfrey, lavender, thyme, witch hazel, yarrow root rinses
Tea Tree Oil

- *Melaleuca alternifolia*
- Bactericidal
- 5% tt oil gel as effective as 5% benzoyl peroxide (Bassett, 1990)
- 3-5 times as effective as placebo (Enshaieh, 2007)
- DON’T USE UNDILUTED
- TOXIC if INGESTED
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<td>Monitor Closely&lt;br&gt; Tea Tree oil</td>
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Folk Remedies

- Poultices using
  - Carrot
  - Cucumber
  - Colloidal oatmeal
  - Turmeric/sandalwood paste
  - Green clay and cornflour
- Aloe vera gel
- Lemon juice rinse
- Rinses with echinacea, Oregon grape, burdock root, goldenseal

NO RCTs on folk remedies
Probiotics???

- Can help with antibiotic-associated GI symptoms
- Can inhibit growth of *Proprionibacterium acnes* (Al-Ghazzewi FW, 2010)
- May have synergistic effect with antibiotics (Jung GW, 2013)
- Brand? Dose? Duration?
- Good idea if co-morbid IBS
Medications, briefly

1. Plug-busters for sebum
   - Benzoyl Peroxide
   - Salicylic acid
   - Azelaic acid

2. Vitamin A relatives
   - Retinoids, adapalene
   - Isotretinoin

3. Target hormones: contraceptives

4. Target bacteria: topical and oral antibiotics
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| YES  | Use/Recommend  
      | Eat well  
      | Manage Stress | Tolerate:  
      | Green Tea topically  
      | Resveratrol topically |
| NO   | Monitor  
      | Tea Tree oil  
      | Medications | Advise Against: oily  
                  | cosmetics  
                  | Excess B12, iodine, Certain  
                  | meds       |

Other Acne Treatments

• No RCTs showing benefits of
  – Massage
  – Chiropractic
  – Osteopathy
  – PT
  – Homeopathy
  – Prayer

• Acupuncture – mixed results

• **Surgery** may help severe scars: refer to plastics or dermatology
  – Cryosurgery
  – Dermabrasion
  – Chemical peels
Diaper Rashes

- **Irritant** rashes (alkaline pH from bacterial breakdown of urea)
- **Yeast** rashes (*Candida*); check the mouth and nursing nipples, too
- **Less common**: allergy, eczema, seborrhea, psoriasis, infections, zinc deficiency, biotin deficiency
Preventing Diaper Rashes

• Breast-feed
• Keep diaper area clean and dry; avoid plastic covers over cloth; change 6-8 times daily
• Allow diaper area to air dry
• Avoid unnecessary antibiotics, especially diarrhea-inducing types that kill healthy microbiome
• Careful with chemical wipes- can irritate
• NO Talcum Powder!
# Therapies for Diaper Rash

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<td>Use/Recommend Breast feed Clean Dry</td>
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<td>NO</td>
<td>Monitor: Diaper Wipes</td>
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Treating Diaper Rash: Nutrition

- Yogurt/probiotics? Traditional use. Needs more research, but safe to tolerate.
Treating Diaper Rashes: Meds

- Barrier ointments (Vaseline, A&D)
- Drying agents (zinc oxide, Desitin)
- Antibacterial (Diaparene, A&D Medicated)
- AVOID clioquinol and iodoquinol
Treating Yeast Rashes: Meds

- Nystatin – natural, derived from bacteria in NY state!
- Undecylenic acid
- Fluconazole, itraconazole, ketoconazole - Rx
- Miconazole
- Clotrimazole
- Gentian violet- stains and is NOT derived from gentian or violet flowers
Herbal Remedies - few studies

- Calendula, marigold
- Chamomile
- Chickweed
- Comfrey
- Elder flowers
- Goldenseal
- Lavender
- Marsh mallow root
- Rosemary
- Witch hazel

AVOID garlic poultices on babies’ tender skin! DON’T apply egg white -> allergies can occur
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Breast feed  
Clean  
Dry  
Barrier ointments  
Yeast: Nystatin and other safe OTC treatments | Tolerate:  
Probiotics  
Home remedy herbal washes |
| NO   | Monitor:  
Diaper Wipes Medicated | Advise Against:  
Unnecessary antibiotics  
Clioquinol/iodoquinol  
Garlic or egg white topical |
Diaper Rash - No Research on...

- Massage
- Chiropractic
- Surgery
- Acupuncture
- TT, HT, Prayer
- Acupuncture
- Homeopathy

IF Safe, TOLERATE; do not RECOMMEND
### Summary

#### Acne
- Healthy Mediterranean diet; low glycemic index foods
- Avoid oily environment, cosmetics, friction
- Manage stress
- Medications effective
- Consider tea tree oil
- Tolerate home remedies
- Avoid excessive iodine, B12

#### Diaper Rash
- Keep it clean and dry
- Breastfeed
- Consider barrier ointments
- Avoid unnecessary antibiotics
- Avoid garlic poultices and egg white washes
- Consider antifungal creams and ointments
- Tolerate probiotics
- Tolerate home remedies with common sense precautions