Nutritional Considerations
with Skin Disorders

Presented by: Ron Grabowski, R.D., D.C.
Characteristics Rosacea

• Most occurs in individuals between 30-50 years of age.
• Fair-skinned individuals of Northern European descent.
• Women 2-3X more frequent than men.
• Prevalence is increasing in United States.
• Ocular complications
  • 50% of people with acne rosacea.
  • M/C conjunctivitis with or without blepharitis
  • Dry and burning eyes
  • Corneal neovascularization
  • Corneal keratitis
  • Episcleritis
  • Iritis
Stages – Rosacea

Pre-rosacea; facial flushing and blushing
Vascular; erythema and/or edema and ocular symptoms
Inflammatory; papules and pustules
Late; Rhinophyma
FIGURE 3. Rhinophyma with a few papules and telangiectasias also visible.
FIGURE 1. Papular rosacea with nasal erythema and telangiectasias.
FIGURE 2. Prominent erythema with pustules. This could be confused with the malar rash of systemic lupus erythematosus.
FIGURE 5. Inflammatory conjunctivitis with blepharitis.
Inflammatory process.
Stimulus includes:
  • Foods
  • Environmental
  • Chemical
  • Psychologic
  • Emotional stress

Associations
  • Demodex folliculorum (face mite)
  • H. pylori
  • Migraine headaches
## Common Factors that May Aggravate Rosacea

<table>
<thead>
<tr>
<th>Aggravating Factor</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Sun exposure</td>
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<tr>
<td>Emotional Stress</td>
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<tr>
<td>Hot weather</td>
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<td>Alcohol</td>
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<td>Spicy Foods</td>
<td>43</td>
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<td>Exercise</td>
<td>39</td>
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<td>Wind</td>
<td>38</td>
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<td>Hot baths</td>
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<tr>
<td>Cold weather</td>
<td>36</td>
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<tr>
<td>Hot drinks</td>
<td>36</td>
</tr>
<tr>
<td>Skin care products</td>
<td>24</td>
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</tbody>
</table>
Differential Diagnosis – Rosacea

Acne
- Adult-onset acne
- Drug-induced acne
- Steroid-induced acne

Photodermatitis
Systemic lupus erythematosis
Sarcoidosis
Allergic conjunctivitis
Seborrheic dermatitis
Mastocytosis
Carcinoid syndrome
- GI symptoms
- Cardiac symptoms
- Pulmonary symptoms
Treatment - Medical

**Oral antibiotics**
- Tetracycline
- Doxycycline (Vibramycin)
- Metronidazole (Flagyl)

**Topical**
- Clindamycin (Cleocin)

**Second Line**
- Accutane (oral)
- Retin-A (topical tretinoin)
- Bactrim
- Septra
- Prednisone (oral)
  - Topical corticosteroids should be avoided on the face.

**Erythema and Flushing**
- Inderal – nonselective beta blocker
- Corgard – nonselective beta blocker
B Vitamins

Riboflavin

- Deficiency has been associated in patients with rosacea.

Pyridoxine

- May be beneficial for premenstrual acne, acne vulgaris and rosacea.
Digestive enzyme

- Deficient lipase secretion has been found with rosacea.
Low Fat Diet

- High dietary fat intake may be associated with excess sebum production.
Vitamin A

- Antioxidant
- Aids with gastrointestinal epithelium integrity.
- May reduce sebum production.
Vitamin E

- Aids in the biologic utilization of vitamin A
- Synergistic with selenium
Selenium

- Involved in the synthesis of glutathione peroxidase
- Synergistic with vitamin E.
Zinc

- Antioxidant
- Synergistic with vitamin A
Chromium

- May improve skin glucose tolerance
- Enhances insulin sensitivity
- May affect the conversion of linoleic acid to prostaglandins
Dietary/Lifestyle Considerations for Acne

- Rule out all food sensitivities/intolerances.
- Rule out hydrochloric acid deficiency.
- Low fat diet (<40 gm/day)
- High fiber diet (>25 gm/day)
- Avoid products high in methylxanthines.
- Limit dairy products.
- Avoid/limit refined carbohydrates.
- Avoid products high in iodine.
- Avoid inorganic iron supplements.
- Avoid commercial soft beverages with brominated vegetable oils (can aggravate acne).
- Consume a minimum of two liters of water each day.
- Estrogen and progesterone (antagonistic to vitamin E)
Oral Cavity

- Dentition
- Gums
- Tongue
- Lips
- Buccal region
Angular cheilitis

- Candida albicans
- Staph. Aureus
- Iron deficiency
- Riboflavin deficiency
- Pyridoxine deficiency
- Essential fatty Acids
Recurrent aphthous stomatitis, or "canker sores," is an oral ulcerative condition with a prevalence ranging from 5 to 21 percent. Although a variety of host and environmental factors have been implicated, the precise pathogenesis remains unknown. Smoking is associated with a lower prevalence, but other associations, such as nutritional deficiencies (e.g., vitamin B12, folate, iron), remain unclear. Severe cases may be related to underlying systemic conditions such as inflammatory bowel disease, celiac disease, Behçet's syndrome, and HIV infection.
Herpes labialis

These lesions affect approximately 15 to 45 percent of the U.S. population.

The vesicles subsequently rupture, ulcerate, and crust within 24 to 48 hours.

Spontaneous healing occurs over 7 to 10 days.

Orally administered antiviral agents, such as acyclovir (Zovirax) or valacyclovir (Valtrex), have a modest clinical benefit if initiated during the prodrome.

L-Lysine plus calcium.
Tongue

Glossitis

- Riboflavin
- Niacin
- Pyridoxine
- Folate
- Cobalamin
- Iron

White Coating

- GI disturbance
Integumentary Evaluation
Dry Skin

- Essential fatty acids
- Biotin
- Pantothenic acid
- Protein deficiency
- Oleic acid deficiency
Dermatitis herpetiformis is a chronic papulovesicular skin disorder in which lesions are distributed over the extensor surfaces of the elbows, knees and buttocks. The disorder is associated with a specific non-IgE-mediated immune sensitivity to gluten (a protein found in wheat, barley, oat and rye). Dermatitis herpetiformis is related to celiac disease, patients often appear to have no associated gastrointestinal problems. The rash abates with the elimination of gluten from the diet.
Villous Atrophy

Celiac disease
Eruptive Xanthomas
Achilles Tendon
Xanthomas
Extensor Tendon Xanthomas
Xanthelasma
Tuberous Xanthomas
Nail Evaluation

Koilonychia
- Iron
- Zinc

Vertical Ridging
- Antioxidant status

White Spots (Leukonychia)
- Zinc

Clubbing
Koilonychia

Spoon-shaped nail. May result from trauma, constant occupational exposure of the hands to petroleum-based solvents, or nail-patella syndrome.

Nail-patella syndrome - is an autosomal-dominant condition that includes hypoplastic, easily dislocated patellas, renal and skeletal abnormalities, and glaucoma.

Iron and zinc deficiency, with or without resultant anemia.

- Interestingly, it occasionally occurs in patients with hemochromatosis.

Patients with Raynaud's disease or lupus erythematosus can have spooning, but it usually is not an isolated finding.
Found with:

- Neoplastic
- Lung diseases
- Atrioventricular malformations
- Congenital heart disease
- Celiac disease
- Inflammatory bowel disease
This finding, which defines clubbing, is the obliteration of the normal diamond-shaped space at the proximal end of the nail when the distal phalanges are opposed.
Leukonychia

Zinc deficiency
Acanthosis nigricans

Nonspecific skin change most commonly found in flexural areas such as the axillae, beltline, or the nuchal fold.

It is associated with insulin resistance, most commonly caused by obesity.

Additional causes:

- Hypothyroidism
- Gastrointestinal malignancy
- Other causes of insulin resistance (e.g., polycystic ovary syndrome, rare lipodystrophies).
Eczema

- Probiotics (abnormal flora)
- Zinc deficiency
- Pantothenic acid deficiency
- Vitamin D deficiency
- Essential fatty acid deficiency
Case Study

34 year old male
Chief Complaint: Eczema
Previous Tx: Lotions, steroids and antibiotics.
SpectraCell Results:
  • Vitamin D
  • Zinc
  • Oleic acid
  • Fructose intolerance
  • Spectrox: < 65%

4 year old female
Chief Complaint: Eczema
Previous Tx: Lotions, steroid creams and antibiotics.
SpectraCell Results:
  • Vitamin D
  • Zinc
  • Spectrox: < 65%
Eczema
(4 year old female)

Pre-treatment

Post-treatment
Please join us next month, Thursday October 21st, for our webinar on, “Nutritional Considerations of Mood Disorders.”

To register log on to www.spectracell.com/webinars

For a one-on-one consultation with Dr. Grabowski please email webinar@spectracell.com to set up an appointment.