CUTANEOUS MANIFESTATIONS OF SYSTEMIC DISEASE

Internal Medicine Clerkship Noon Lecture
September 30, 2011
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CAVEAT:

Dermatology is *still* a subspecialty of internal medicine

Today’s subject takes years to adequately learn.

This 1 hour lecture aims to introduce you to the skin and some commonly seen manifestations of systemic disease.

For the sake of time, I will omit the histopathological correlation and treatment of these diseases.
HOW ABOUT A POP CULTURE QUIZ?
This is a good basic reference for non-dermatologists.
How Should you think about skin?

- Know skin structures
- Accurately describe lesions that you see
- Develop a differential diagnosis
  - Inflammatory?
  - Infectious?
  - Neoplastic?
THE SKIN AS DERMATOLOGISTS SEE IT

- Hair
- Sebaceous Gland
- Sensory Nerve Ending
- Epidermis
- Nerve
- Dermis
- Subcutaneous Tissue
- Capillaries
- Sweat Gland
- Muscle
- Arteriole
- Fat, Collagen, Fibroblasts
SCLEREDEMA
Scleredema is associated with:
1. Febrile illness
2. Diabetes mellitus
3. Plasma cell dyscrasias
Malum Ulcer
Due to microangiopathy and neuropathy
Dry Gangrene
Diabetic Dermopathy
Present in up to 30% of diabetics—usually poorly controlled diabetics
This is probably due to microangiopathy.
POLYCYSTIC OVARY SYNDROME

- Approximately 10% of female population
- Fewer than 9 menstrual cycles per year
- Obesity
- Hirsutism
- Acne
- More importantly, metabolic diseases......
  - Hypertension
  - Hyperlipidemia
  - Insulin resistance
- Increased risk of endometrial cancer
Who is this man?
Sarcoidosis

- Characterized by non-caseating granulomas
  - Mostly located in the Lymph nodes and lungs
  - Can also involve the skin, eyes, liver, heart, nervous system, musculoskeletal, renal, and endocrine system
- Erythema Nodosum is the most common non-specific finding
- Specific cutaneous findings include:
  - Lupus Pernio
  - Papular, nodular, and plaque-like lesions
  - SQ lesions
Sarcoidosis is a multisystem disease of unknown etiology.
What’s wrong with this man?
Liver Disease

- Jaundice
- Palmar erythema
- Purpura
- Spider angiomas
- Pruritis
- Lichen planus (Hepatitis C)
I LOVE THIS PICTURE!
SKIN MANIFESTATIONS OF RENAL DISEASE

- Xerosis
- Yellowing of skin
- Pruritis
- Perforating Folliculitis
- Calciphylaxis
- Nephrogenic systemic sclerosis
Perforating Disorder of Renal Dx
Look closely.......
SKIN MANIFESTATIONS OF SOLID TUMOR MALIGNANCY

- Acanthosis Nigricans
- Malignant Down
- Erythema Gyratum Repens
- Sister Mary Joseph Nodule
Described as “wood grain”

- Associated with cancer of the following:
  - Breast
  - Stomach
  - Bladder
  - Prostate
  - Cervix
Sister Mary Joseph Dempsey was Dr. William Mayo’s surgical assistant.

1. Colon
2. Ovary
3. Pancreas
4. Endometrium
5. Breast
6. Small bowel
SKIN MANIFESTATIONS OF HEMATOLOGIC MALIGNANCY

- Sweet’s Syndrome
- Pyoderma Gangrenosum
- Paraneoplastic Pemphigus
- Amyloidosis
- Sezary Syndrome/Erythroderma
- Leukemia cutis
- Lymphoma cutis
Acute Febrile Neutrophillic Dermatosis
SWEET’S SYNDROME

Malignant Associations
- AML
- Myleodysplasias
- Lymphoma

Benign Associations
- URI’s
- Strep
- RA
- Behcet’s
- Crohns
- Sarcoidosis
Paraneoplastic Pemphigus

1. Non-Hodgkin’s Lymphoma
2. CLL
3. Castleman’s Disease
WHAT IS YOUR SPECIALTY

IM

Nephrology- angiokeratoma corporis diffusum
Cardiology- erythema marginatum
Infectious Disease- Kaposi’s sarcoma
Rheumatology- keratoderma blennorhagicum
Gastroenterology- pyoderma gangrenosum
Heme-Onc- erythema gyratum repens
Pulmonary- lupus pernio
Endocrine- necrobiosis lipoidica